

U.S. RAILROAD TRAFFIC ATLAS

By **Harry Ladd**

Published by www.RailfanDepot.com

Under license agreement with Ladd Publications

TABLE OF CONTENTS

Acknowledgements.....	Page 2
Safety and Map Notes.....	4
Your Map Notes.....	8
Legend.....	9

STATE and CITY MAPS

Alabama.....	10
Alaska.....	11
Arizona.....	12
Arkansas.....	13
California.....	14
Los Angeles/San Francisco.....	15
Colorado.....	16
Connecticut.....	17
Delaware.....	18
Florida.....	19
Georgia.....	20
Hawaii.....	11
Idaho.....	21
Illinois.....	22
Chicago.....	23
Indiana.....	24
Gary.....	25
Iowa.....	26
Kansas.....	27
Kentucky.....	28
Louisiana.....	29
Maine.....	30
Maryland.....	18
Massachusetts.....	31
Michigan.....	32
Minnesota.....	33
Twin Cities/Twin Ports.....	34
Mississippi.....	35
Missouri.....	36
Saint Louis/Kansas City.....	37
Montana.....	38
Nebraska.....	39
Nevada.....	39
New Hampshire.....	41
New Jersey.....	42
Newark.....	43
New Mexico.....	12
New York.....	44
New York City/Buffalo.....	45

North Carolina.....	46
North Dakota.....	47
Ohio.....	48
Oklahoma.....	49
Oregon.....	50
Pennsylvania.....	51
Philadelphia.....	52
Pittsburgh.....	53
Rhode Island.....	17
South Carolina.....	54
South Dakota.....	47
Tennessee.....	55
Texas (west).....	56
" (east).....	57
Utah.....	40
Vermont.....	41
Virginia.....	58
Washington.....	59
West Virginia.....	60
Wisconsin.....	61
Wyoming.....	62

RR SYSTEM MAPS

AMTK.....	63
BNSF.....	64
BNSF-2001 PRB coal tonnage.....	65
CN (ex-GTW,WC).....	66
CN (ex-IC).....	67
CP.....	68
CSX.....	69
DME-ICE.....	70
Guilford-ST.....	71
KCS.....	72
NS.....	73
UP.....	74
UP-2002 coal trains.....	75
SUPER RAILROADS.....	76
Map Abbreviations.....	77
Railroad Abbreviations and Locations..	78
Information Sources.....	95

SAFETY

I want to remind the non-railroaders of some inherent dangers around railroads. Remember that railroad terminals and stations are often located in the oldest, most decayed areas with a high crime rate, so personal safety is a prime concern. There is also the intrinsic danger of large fast-moving objects, the trains themselves. Expect a train on any track going in any direction at any time. Don't stand too near the tracks, because protruding or falling objects could strike you. Also, derailments happen unexpectedly. A final reminder is to obtain permission to enter private property. Take only pictures, leave only footprints!

MAP NOTES

Passenger and freight traffic has been handled differently on the maps. Since passenger trains are scheduled and easy to count, their tonnage has been excluded from the maps. However, freight traffic is noted on the maps by tonnage rather than train frequency because tonnage data is more available than train counts. Therefore the state and city maps show freight tonnage only, but the lettering will indicate which routes carry passenger trains. The Amtrak system map shows the number of passenger trains per day.

Most railroads compile tonnage figures over each section by "Millions of Gross Ton-miles per mile per year", or MGT. To compute MGT for a segment, you total the tonnage of each train (total weight of cars, contents and locomotives) multiplied by how many miles each train traveled

over the segment. That number is divided by the length of the entire section, then divided by one million (1,000,000). This average could be misleading, especially on branches, since every train may not have traveled over the entire section. Only a portion of the segment may carry most of the traffic. I have compensated for this when possible.

Note that only in the Legend on page 9, in the Traffic Density Key, the Tonnage Group equivalents are shown by MGT's and by train frequencies to make it easier to visualize the traffic volumes. An "average-weight train" is figured as 2 MGT, which is 5,479 tons per train. The Association of American Railroads' 2001 statistics from *Railroad Facts* (see page 98) says 3,005 net tons per trainload, 64 net tons per carload (so 47 loads make 3,008 net tons), average of 68.5 cars per train (therefore 47 loads plus 21.5 empties). Using 29 tons as an average empty car weight, that's 4,992 tons per train, or 1.8MGT. So using the 2 MGT average slightly undercounts the trains per day by about 10%.

However, the two most common types of trains (bulk and intermodal) are sometimes at opposite ends of the weight scale. Bulk commodity trains, such as coal, grain, iron ore, rock, and potash, are heavy and average up to 140 gross tons per car. Union Pacific's Powder River Basin coal trains average 134 gross tons per car. I've used a 132-car UP coal train from the PRB with an average of 2.5 6-axle (General Electric AC4400CW, 210 tons each fully loaded) units as the standard "heavy" train, which would be 18,213 tons. Annually (x 365 days), that would be 6.6 MGT for each loaded

MAP NOTES (continued)

train per day. The returning empty train averages 24.5 tons per car. The weight varies as low as 22 or as high as 30 tons for aluminum cars or the heavier steel cars. One empty train every day is only 1.2 MGT. You will usually see a pair of trains near loading points (empties in, loads out), so I've used a pair as the unit of measure in the Traffic Density Key in the Legend on page 9.

Obviously, routes with a high percentage of short, light intermodal trains will have fewer MGT than you would expect for the number of trains per day. Intermodal trains are made up of trailers or containers on flat cars. However, a long double-stack container train can approach 9,000 tons gross weight.

These maps show track ownership as of July, 2003. Tonnage groups are based on 2000-2002 data. Keep in mind other factors that will affect the tonnage on a route. Any segment near the upper range of a tonnage group, say 39 MGT (tonnage group 6), will move into the next higher group (7) during a good business year. Traffic may be combined onto one route so that parallel facilities can be downgraded. Or conversely, as traffic grows, freight may be shifted to parallel lines to relieve congestion. Tonnage can change drastically when a large coal contract runs out or is shifted to another mine or railroad. Georgia Power is switching about 9 MGT of coal traffic from UP to BNSF from the PRB to Memphis.

In agricultural areas, volume fluctuates with the fortunes of agribusiness. For example, a comparison of three consecutive years of traffic density maps of the state of Kansas showed that many branches moved from tonnage group 1 to 2 and vice versa during that time. Agricultural traffic is seasonal. A line might normally see service only once a week. However, at harvest time, there may be several trains on the line at once.

On any given line traffic can stop completely due to natural disasters, derailments, or maintenance. Prime time for rail maintenance is the long daylight hours of summer weekdays. When a line is reopened, it will be busier than average until the backlog of trains has passed. A line may seem devoid of traffic, or phenomenally busy, both on the same day.

The above are a few reasons why these tonnage group numbers are not always correct or unchanging. Traffic on any one day may not match the averages shown in the atlas. That's why, "You should have seen it yesterday!", is so commonly heard.

The traffic data is from three main sources: railroad traffic density maps, states' Department of Transportation maps, and reports in publications. The traffic density maps are the most accurate, but some railroads have declined to supply one. Also, most maps don't show detail in complicated terminal areas. Often

MAP NOTES (continued)

traffic is averaged over a long segment, even though there may be large intervening traffic changes due to junctions or originating/destination points. This has been compensated for where I'm familiar with the traffic sources. Another example of the dangers of relying solely on railroad-supplied information- there is a segment of line in Ohio that maps for four years had shown at 23-26 MGT. It turns out that the line had been out of service during that period! At several Class 1's, outside companies are involved in the data handling, so that obvious errors are not spotted. Occasionally there are unexplainable gross changes in traffic from one segment to the next on their traffic density maps.

The state rail plans are usually revised about every five years to qualify for federal funding for rail projects. Some plans have very detailed discussions of freight and passenger traffic with detailed route and tonnage maps. However, the data is usually one to five years old.

Articles in rail-oriented national publications discuss major trends and changes, with in-depth local stories of interest. The many regional publications give the latest local news in detail. Most articles contain traffic information that helps in cross-checking tonnage group numbers, even if it's only a mention of the number of trains per day.

The Cost and Quality of Fuels for Electric Utility Plants (see "Informa-

tion" section) is useful for calculating coal tonnage on routes leading from mines and to power plants. It's especially helpful in the West where coal traffic flows are less complicated and industrial use and exports make up a smaller portion of consumption.

What railroads are not included in this atlas? Rapid transit and streetcar lines, and amusement park, museum or tourist lines that are not operating on former railroad lines of at least a mile in length are excluded. Only the larger or more interesting industrial operations are included. The more congested a map is, the more likely industrial operations will be excluded. Purchase the *Comprehensive Guide To Industrial Locomotives* on page 95 for the location of industrial lines.

Lines that are still operating with overhead electric catenary (wires) instead of diesel locomotives are: passenger routes of *AMTK*- New Rochelle, NY, to Washington, DC and Harrisburg, PA, and New Haven, CT, to Boston, MA; *MNCW*- Mt. Vernon, NY, to New Haven and New Canaan, CT; *NJTR*- Hoboken to Dover (via Morristown and Bloomfield), Long Branch, Gladstone, and Princeton, NJ; *SEPA*- Philadelphia, PA, to West Trenton, NJ, and Warminster, Doylestown via Fort Washington, Chestnut Hill (two routes), Norristown, Cynwyd, West Chester, and Philadelphia Airport, PA; *MTALR*- Baltimore to Cockeysville, MD; *NICD*- South Bend, IN, to Chi-

MAP NOTES (continued)

cago, IL; *METRA*- Chicago to University Park, South Chicago, and Blue Island, IL; EEC for testing new General Electric locomotives at Erie, PA; coal haulers for power plants-BLKM at Page, AZ; DPR at Deserado, CO; NAVM at Four Corners, NM; TU at Martin Lake and Monticello, TX; shortline IATR at Mason City, IA, and tourist lines of *ETER* at East Troy, WI, *YERM* at Yakima, WA, *OERM* at Perris, CA, and *WRM* at Rio Vista Jct., CA.

Passenger routes that are using an electrified third rail instead of catenary are: *MNCW*- New York City to Croton-Harmon and Brewster, NY; and *LI*- New York and Long Island Cities via Sunnyside, and Flatbush Avenue to Far Rockaway, Long Beach, Valley Stream to West Hempstead, Babylon via Freeport, Hempstead, Ronkonkoma, Huntington, and Port Washington, NY.

MTALR (Baltimore, MD), *SDT* (San Diego, CA), and *SNJT* (Camden, NJ) are light rail operations that normally would be excluded, but are shown because they operate over active freight lines.

See *Tourist Trains* on page 98 for other tourist and museum operations that use electric power but that did not qualify to be shown in this atlas. *Tourist Trains* will also indicate those operations that use steam power.

There are two tourist lines in the atlas that are cog railroads. *MWRC*

at Mt. Washington, NH, uses steam locomotives that move by a gear that engages a rack laid between the rails. Regular locomotive wheels would slip too much on the grades of up to 37%. *MPP* uses diesel units to get to the top of Pikes Peak, CO.








The railroad tracks shown in the atlas are all standard gauge, which is 4 feet 8-1/2 inches between the rails. The exceptions at 36 inches are: tourist lines- *WPY* at Skagway, AS; *RCBT* at Felton, CA; *JM-SP* at Fish Camp, CA; *D&S* from Durango to Silverton, CO; *CIS* from Antonito, CO, to Chama, NM; *GL* at Georgetown, CO; *HRS* at Ewa, HI; *LK&P* at Lahaina, HI; *SV* at Baker, OR; *EBT* at Orbisonia, PA (includes some dual-gauge track with MTC); and freight-hauler *USG* at Plaster City, CA. *D&RGHF* at Creede, CO, intends to add a third rail at 36" gauge to become dual-gauge like MTC/*EBT*. *AGSL* at Virginia City, MT, and *DRG* at Hampton, TN, are the only 30-inch gauge lines in this atlas. The *CC&V* at Cripple Creek, CO; *SR&RL* at Phillips, ME; *MNG* at Portland, ME; *WWF* at Sheepscot, ME; and *ERR* at Edaville, MA, are 24-inch gauge, and the cog railway, *MWRC* is 4 feet, 7 inches.

Since many of you have asked about a Canadian atlas, the Railway Association of Canada at (514) 879-8555 or www.railcan.ca produces the excellent and detailed *Canadian Railway Atlas*, book or CD-ROM.

MAP NOTES

LEGEND

9

TRAFFIC DENSITY KEY				
	Tonnage Group	Millions of Gross Ton-miles per Mile per Year	Average-weight Trains per Day	Pairs (1 load and 1 empty) of Heavy Trains per Day
	7	40 PLUS	20+	5+
	6	30-39.99	16-20	4.5
	5	20-29.99	11-15	3
	4	10-19.99	6-10	2
	3	5-9.99	3-5	1
	2	1-4.99	30 or more cars	20 or more cars
	1	0-0.99		
	0	no traffic		



Indicates the point where ownership, trackage rights, or track conditions change.



Indicates ferry route (on water); proposed railroad (on land).



Indicates a major mine or mineral loading point.

CR4(CSX)6 Conrail is the owner of the track and has traffic in the amount of tonnage group 4; CSX Transportation has trackage rights (with the right to run trains) with traffic amounting to tonnage group 6.

CR3[CSX]2 CR is the owner; CSX has haulage rights (CR crews and runs the trains; CSX may or may not supply locomotives, depending on the volume and the contract).

METRA

Indicates primarily passenger service.

ARR_p

Freight service with passenger service.



Directional traffic, such as mostly westbound traffic (often excludes locals).

o/s

Track out of service.

i/s

Track in service (shown where there has been a recent change in status.)

\$

Engine facilities (**Important note:** \$ not shown on state maps for those railroads shown on system maps! For example, the \$ symbol at Williams on AZ map applies to *GCR*, not BNSF, because BNSF \$ is shown only on the system map. Since there are facilities in every large city, only the major system shops will be shown on the system maps.) car\$= car shops.

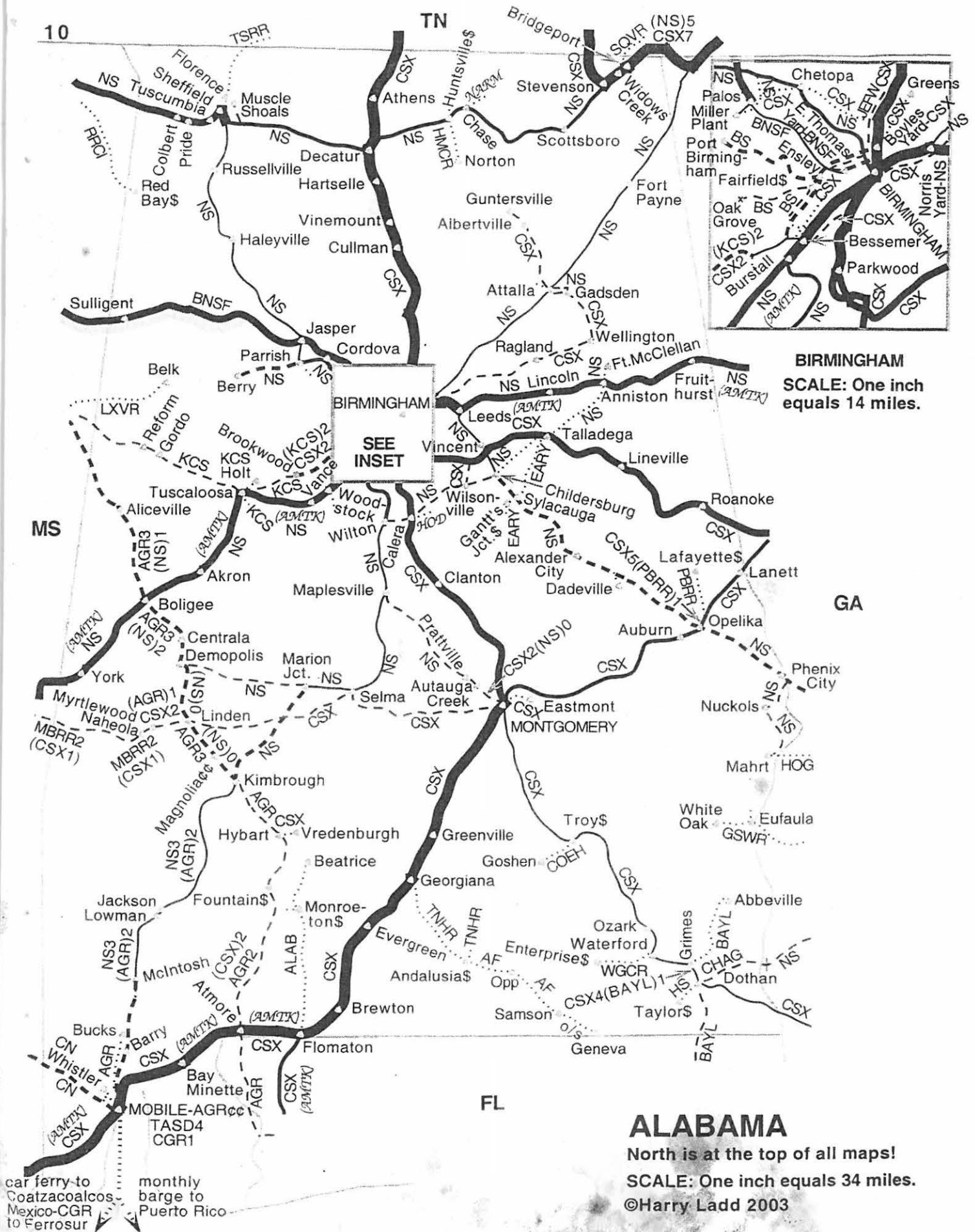
¢¢

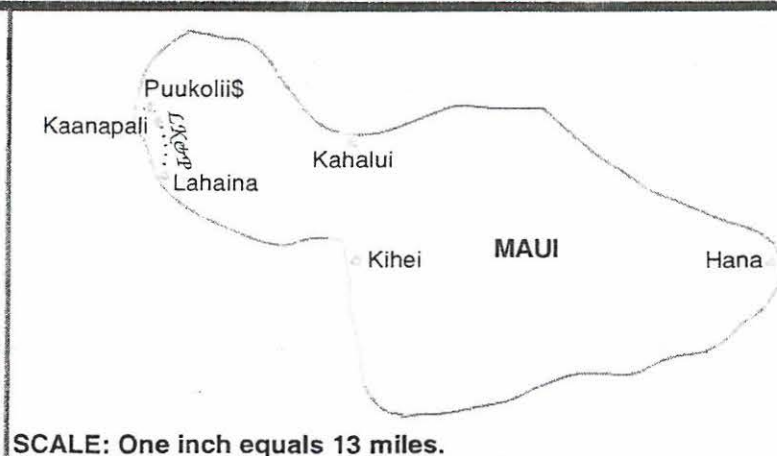
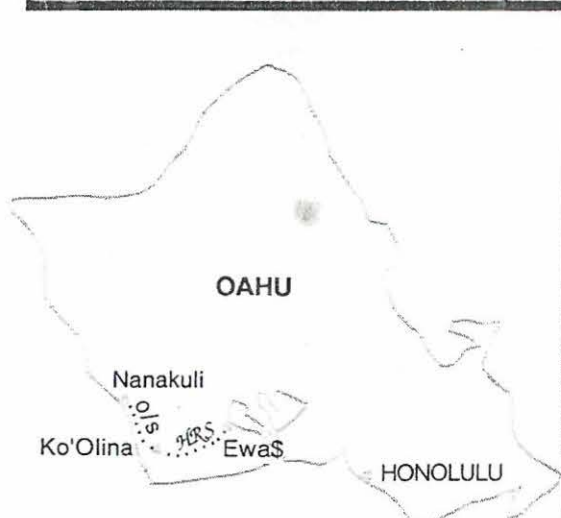
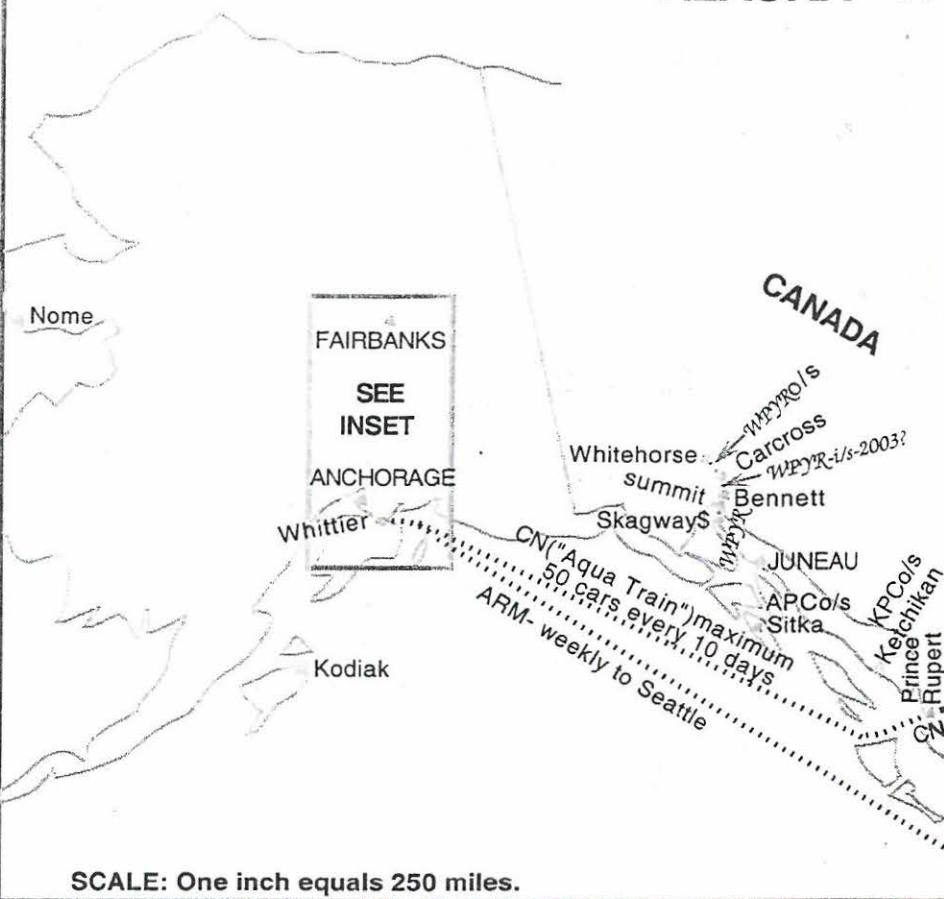
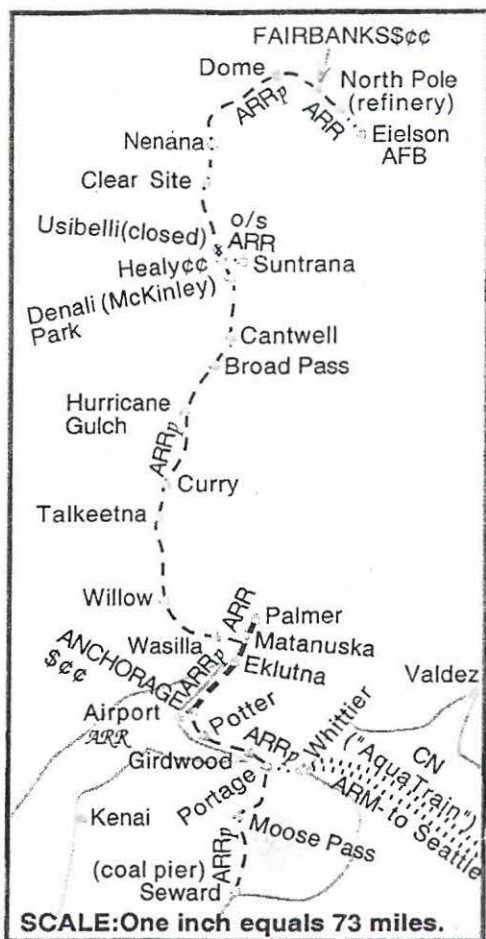
Crew change (or crew base- some crews turn and go back to origin in the same work period). ¢¢ not shown on state maps for railroads shown on system maps. See E¢¢ note on *Amtrak* system map.



Helpers (or pushers)- shading above the line indicates helpers are used from A to B, but not from B to A (if you saw shading below the line, that would indicate helpers are used from B to A). Note many trains are using Distributed Power Units (DPU) back in the train, remotely controlled from the leading unit, instead of manned helpers. See DPU notes on KCS and UP system maps.

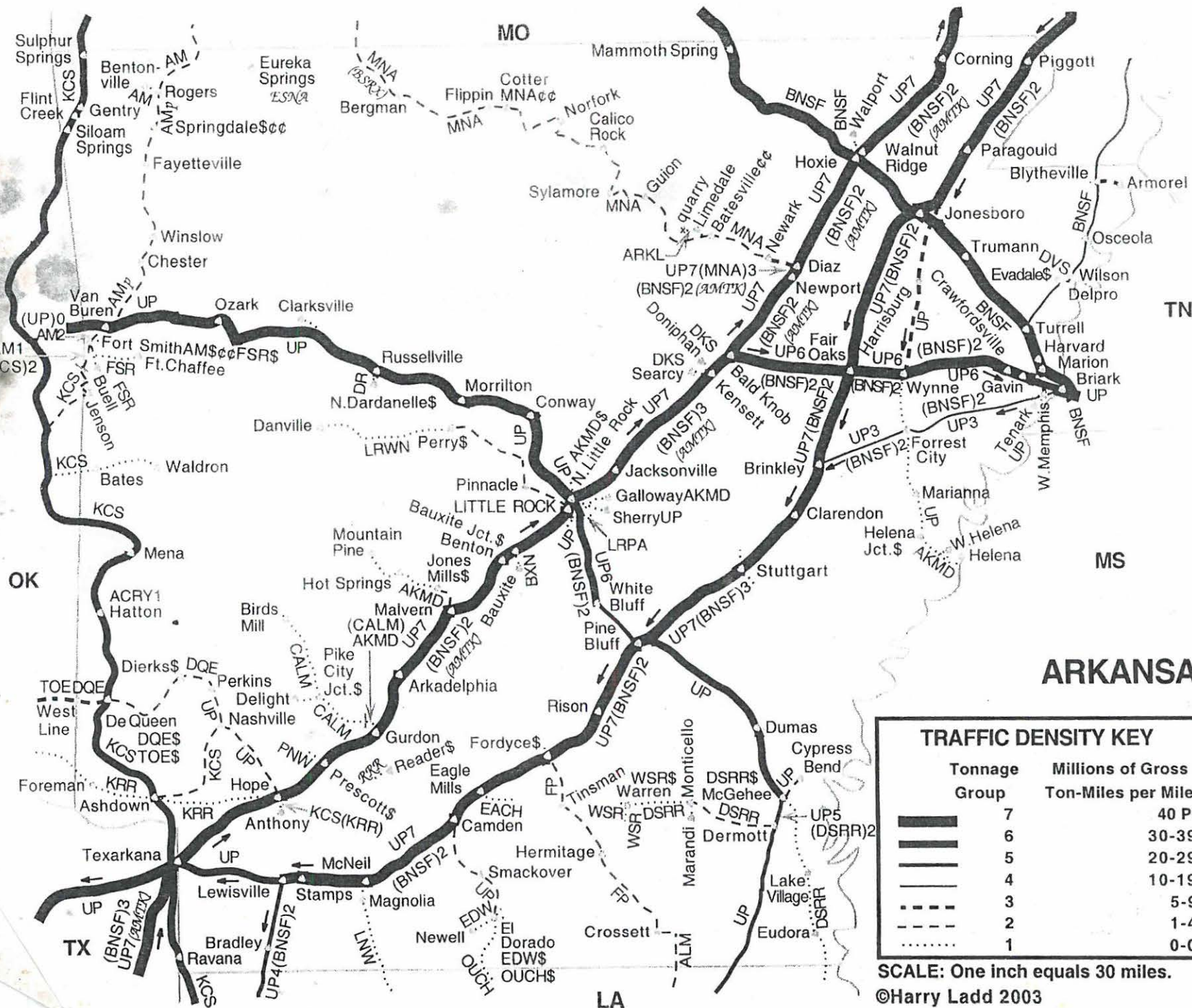
North is at the top of all maps!





TRAFFIC DENSITY KEY		
Tonnage Group	Millions of Gross Ton-Miles per Mile	
7	40 PLUS	
6	30-39.99	
5	20-29.99	
4	10-19.99	
3	5-9.99	
2	1-4.99	
1	0-0.99	



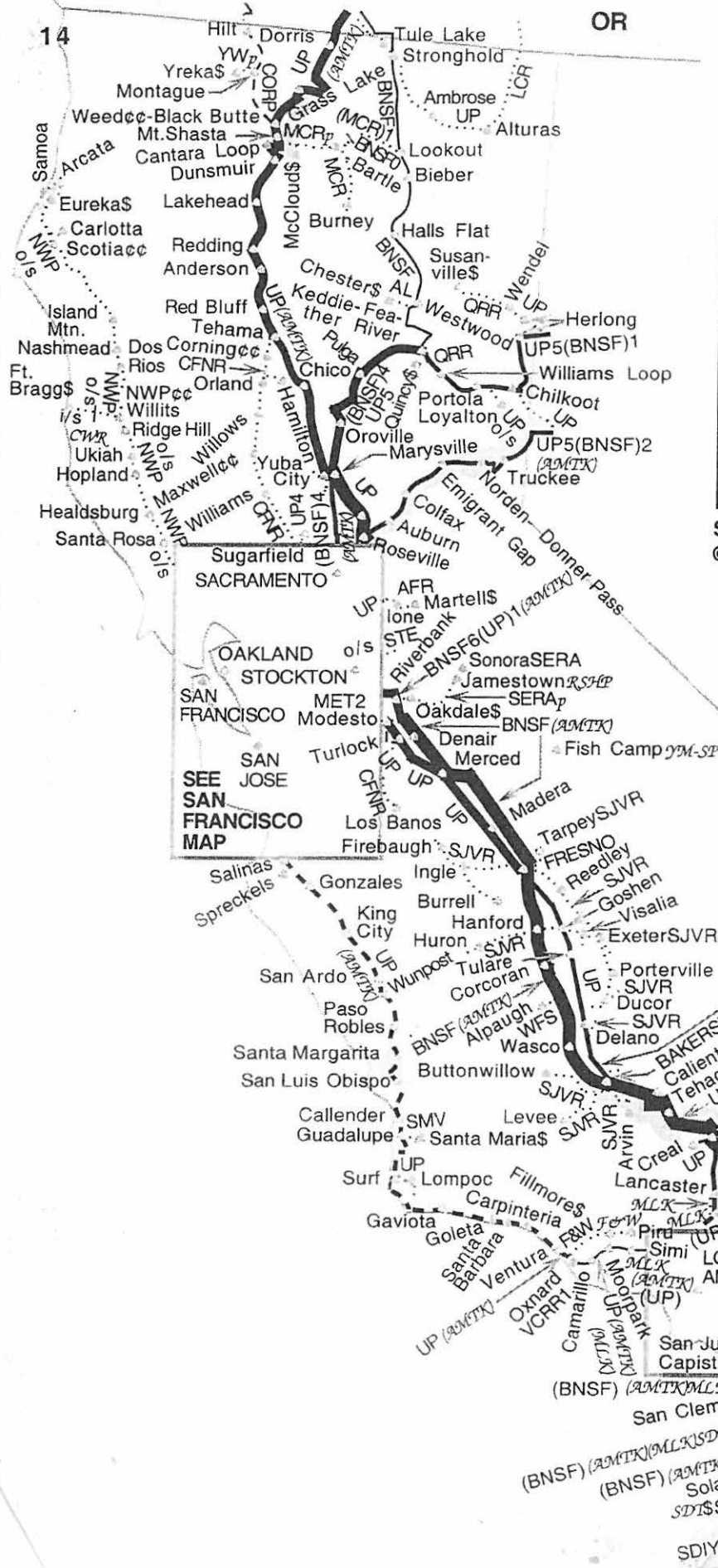


TRAFFIC DENSITY KEY

Tonnage Group	Millions of Gross Ton-Miles per Mile
	7 40 PLUS
	6 30-39.99
	5 20-29.99
	4 10-19.99
	3 5-9.99
	2 1-4.99
	1 0-0.99

SCALE: One inch equals 30 miles.

©Harry Ladd 2003



TRAFFIC DENSITY KEY

Tonnage Group	Millions of Gross Ton-Miles per Mile
7	40 PLUS
6	30-39.99
5	20-29.99
4	10-19.99
3	5-9.99
2	1-4.99
1	0-0.99

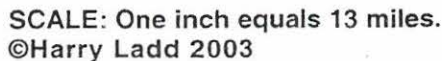
SCALE: One inch equals 68 miles.

©Harry Ladd 2003

NV

AZ

SEE LOS ANGELES MAP



COLORADO

SCALE: One inch equals 40 miles.

©Harry Ladd 2003

16

NE

KS

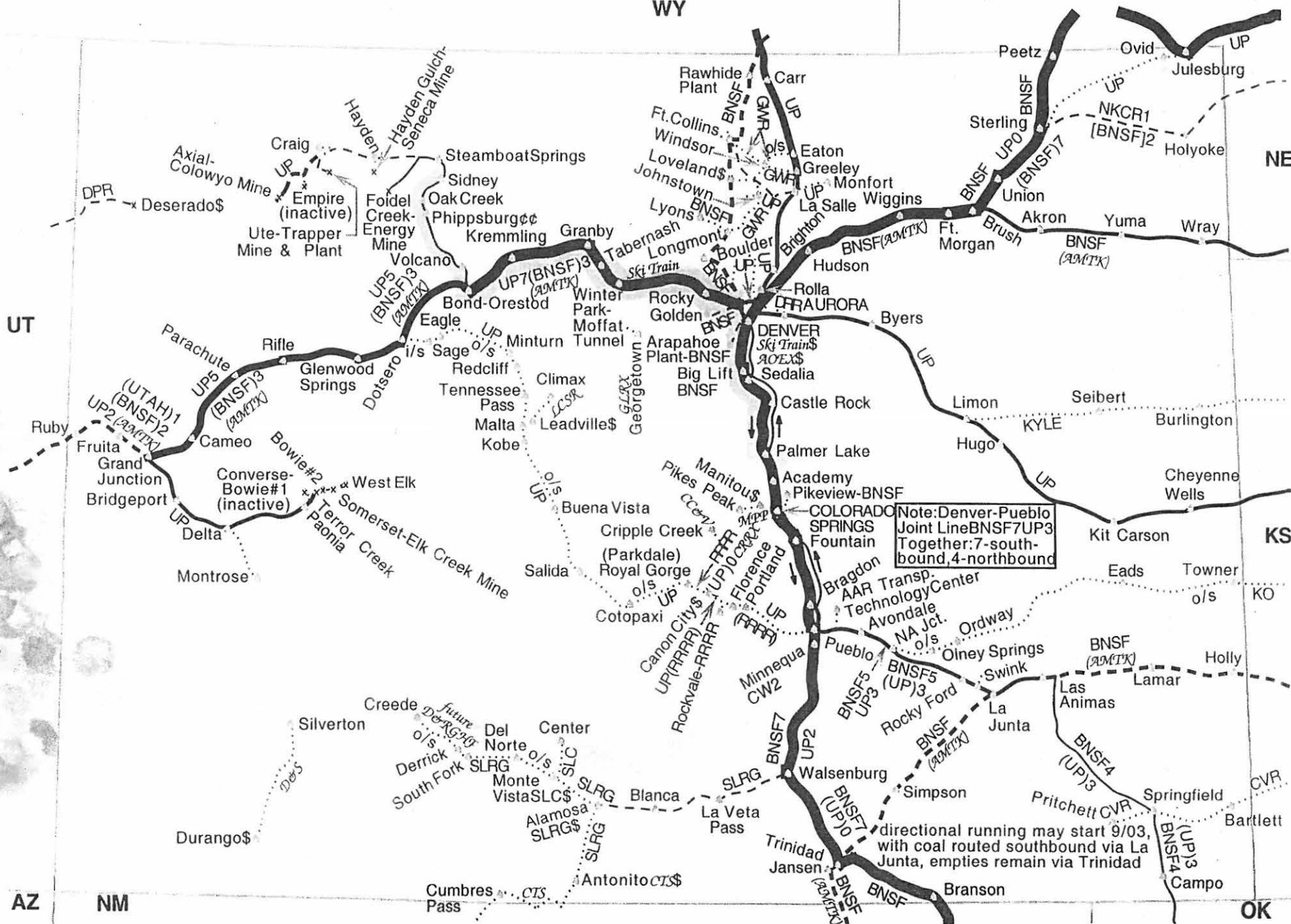
OK

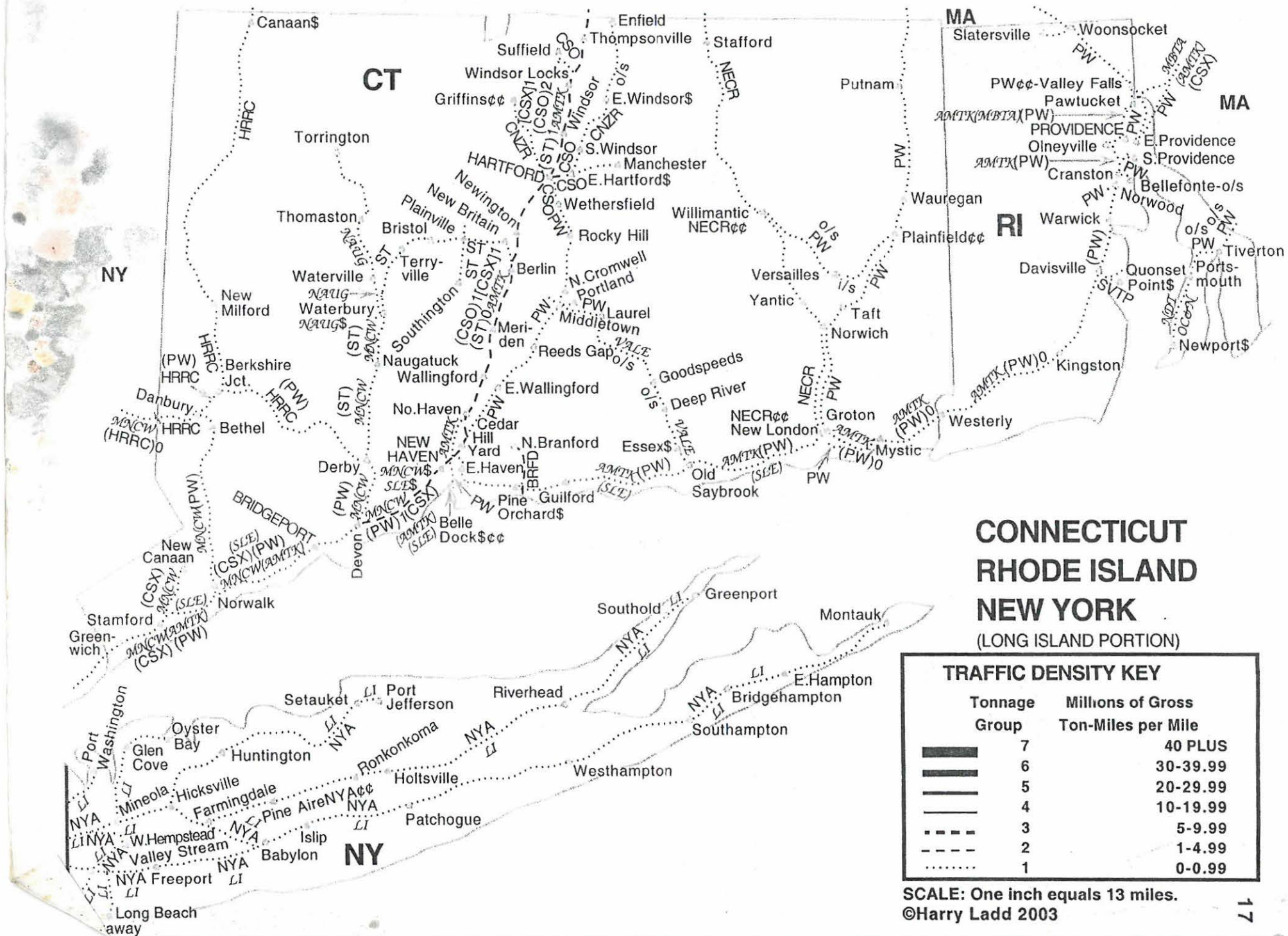
WY

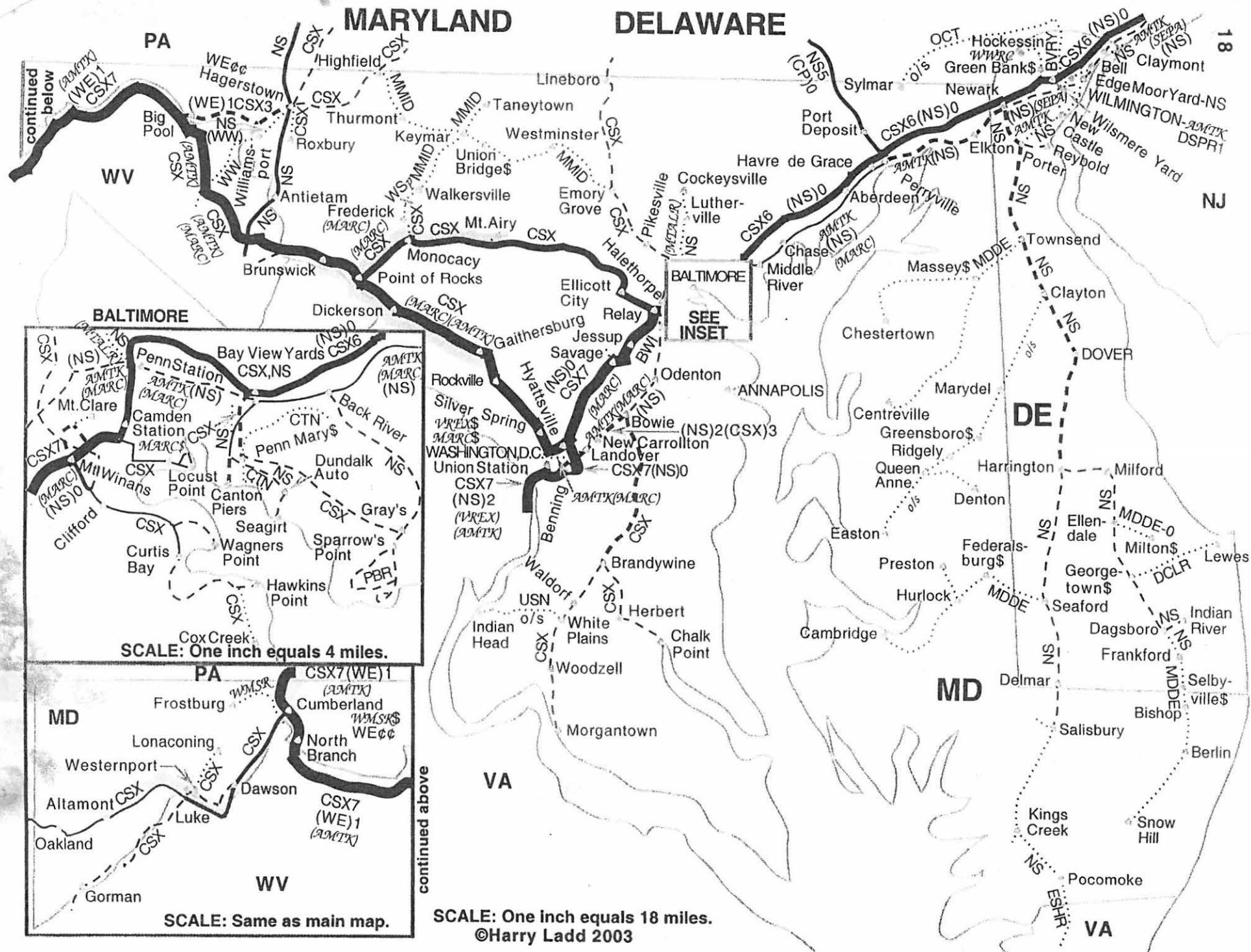
UT

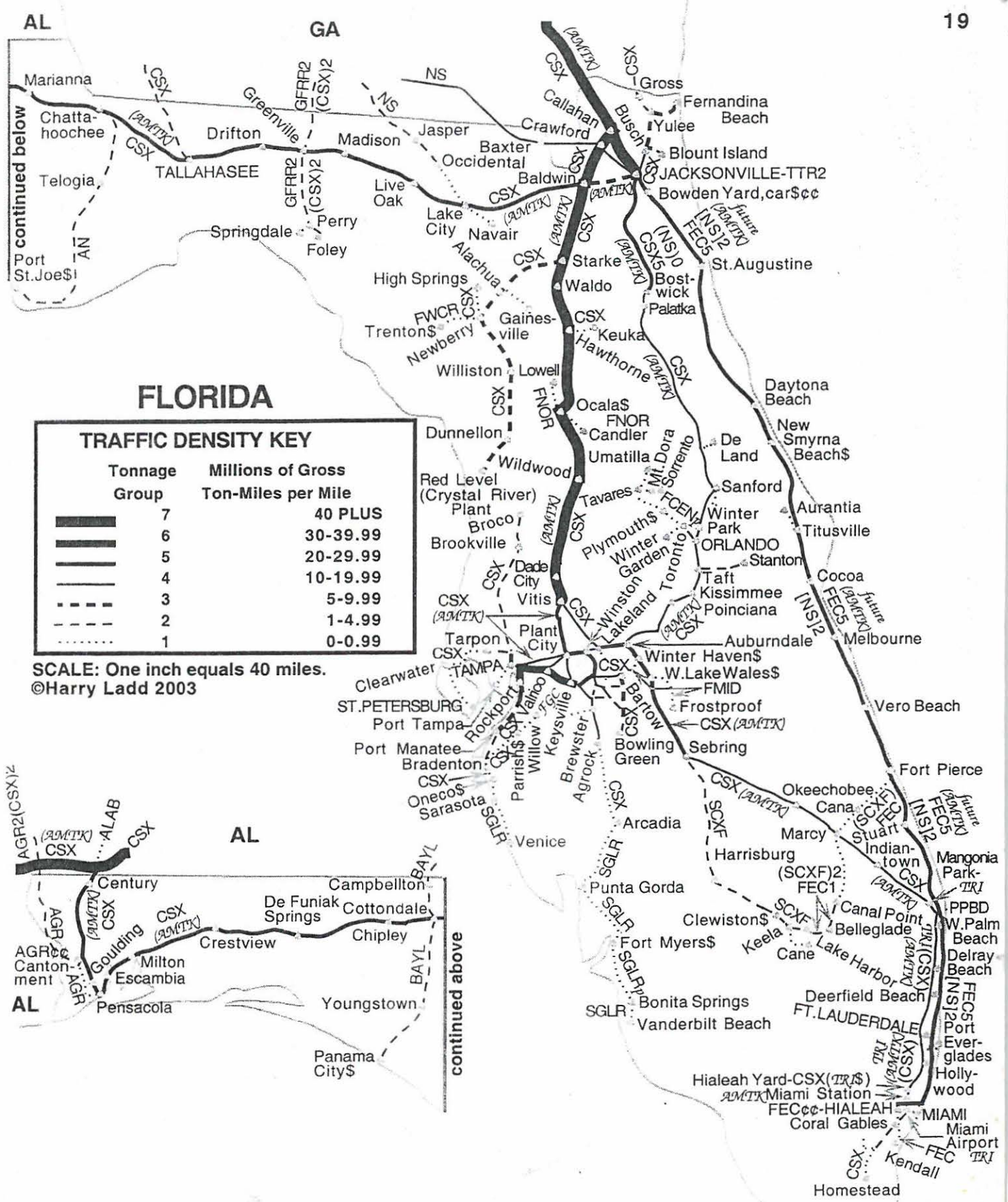
AZ

NM





DELAWARE



GEORGIA

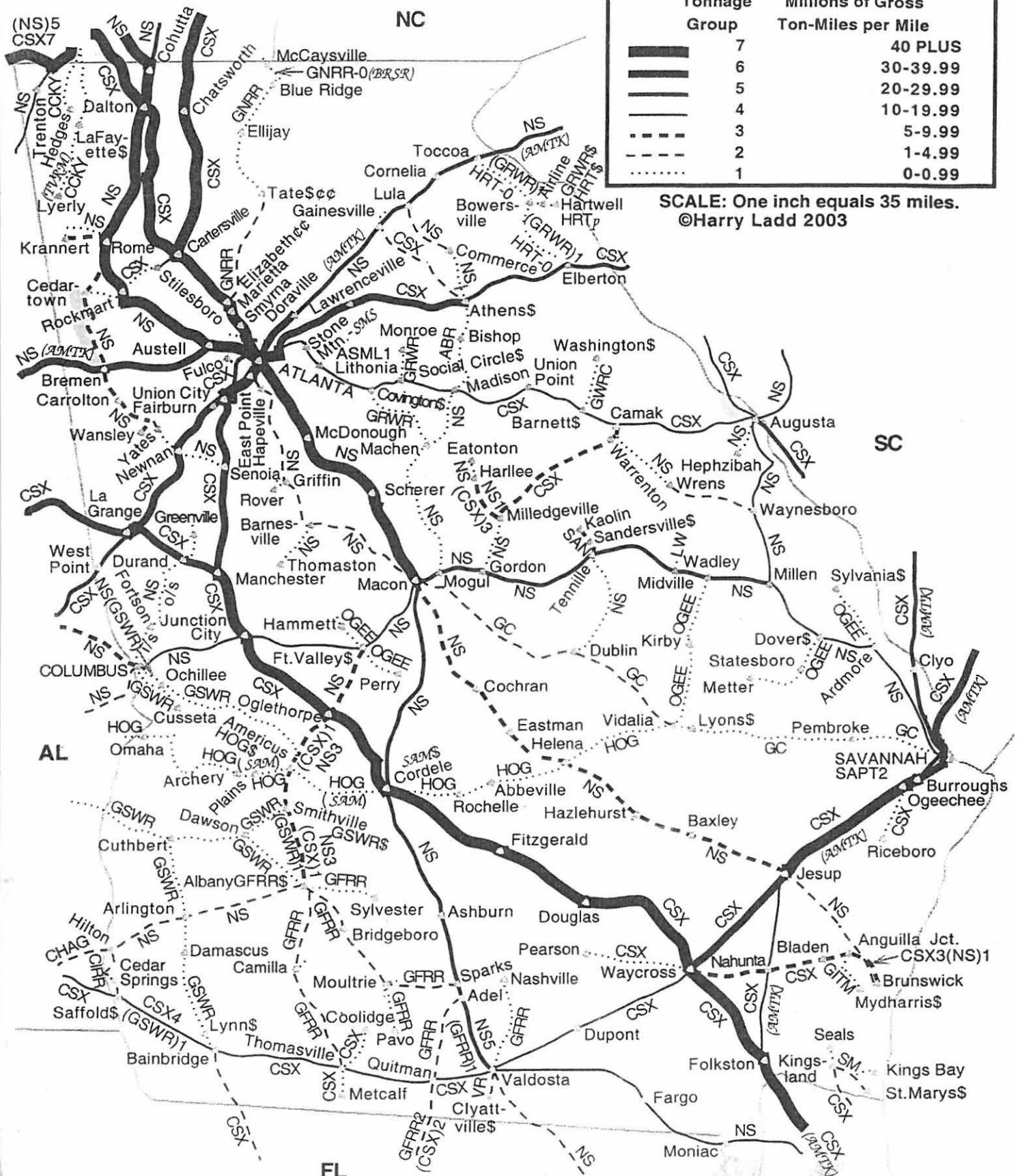
TN

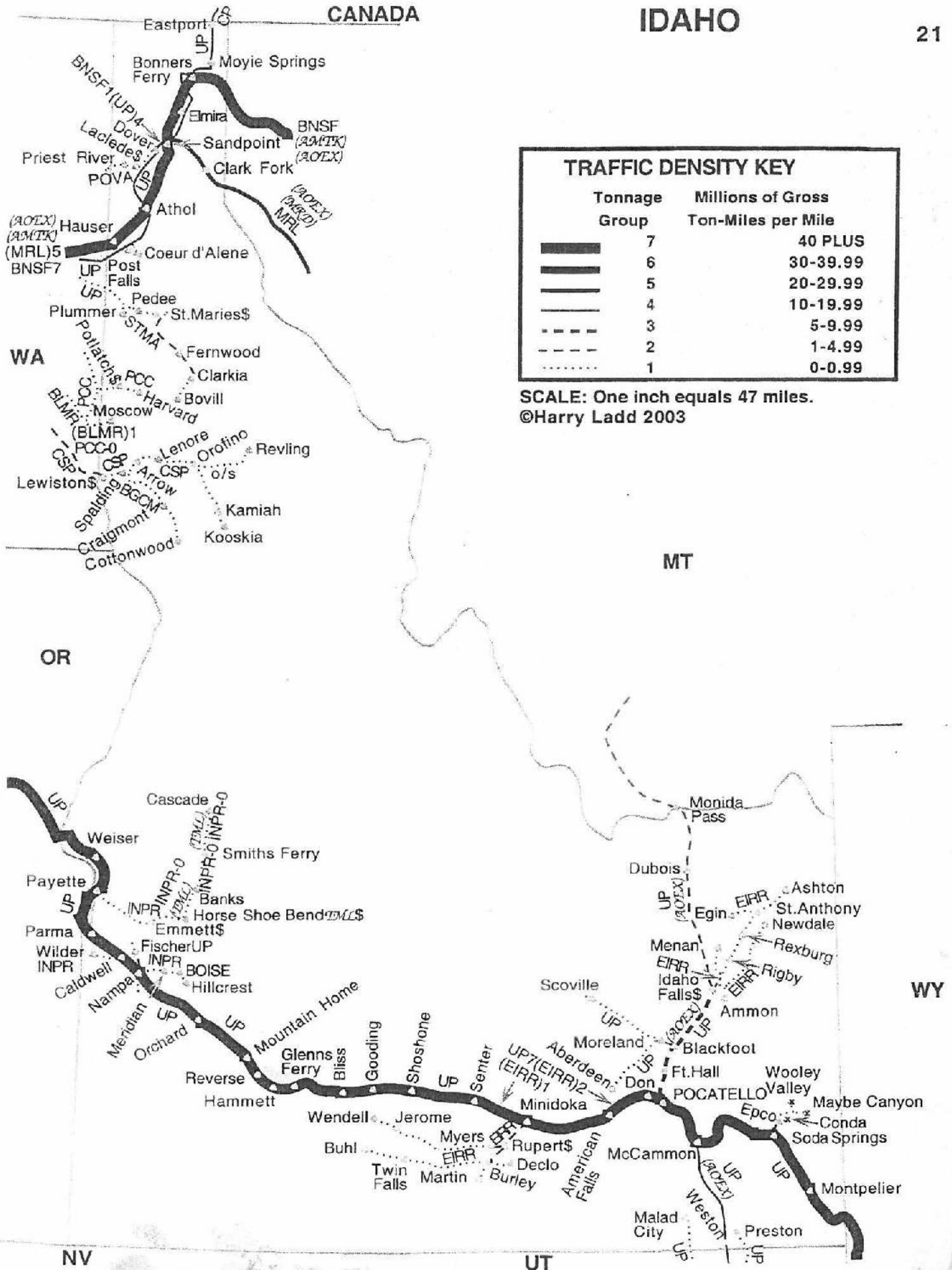
NC

TRAFFIC DENSITY KEY

Tonnage Group	Millions of Gross Ton-Miles per Mile
7	40 PLUS
6	30-39.99
5	20-29.99
4	10-19.99
3	5-9.99
2	1-4.99
1	0-0.99

SCALE: One inch equals 35 miles.
©Harry Ladd 2003





22 TRAFFIC DENSITY KEY

Tonnage Group	Millions of Gross Ton-Miles per Mile
	7 40 PLUS
	6 30-39.99
	5 20-29.99
	4 10-19.99
	3 5-9.99
	2 1-4.99
	1 0-0.99

SCALE: One inch equals 38 miles.
©Harry Ladd 2003

ILLINOIS

INSET

SCALE: One inch equals 14 miles.

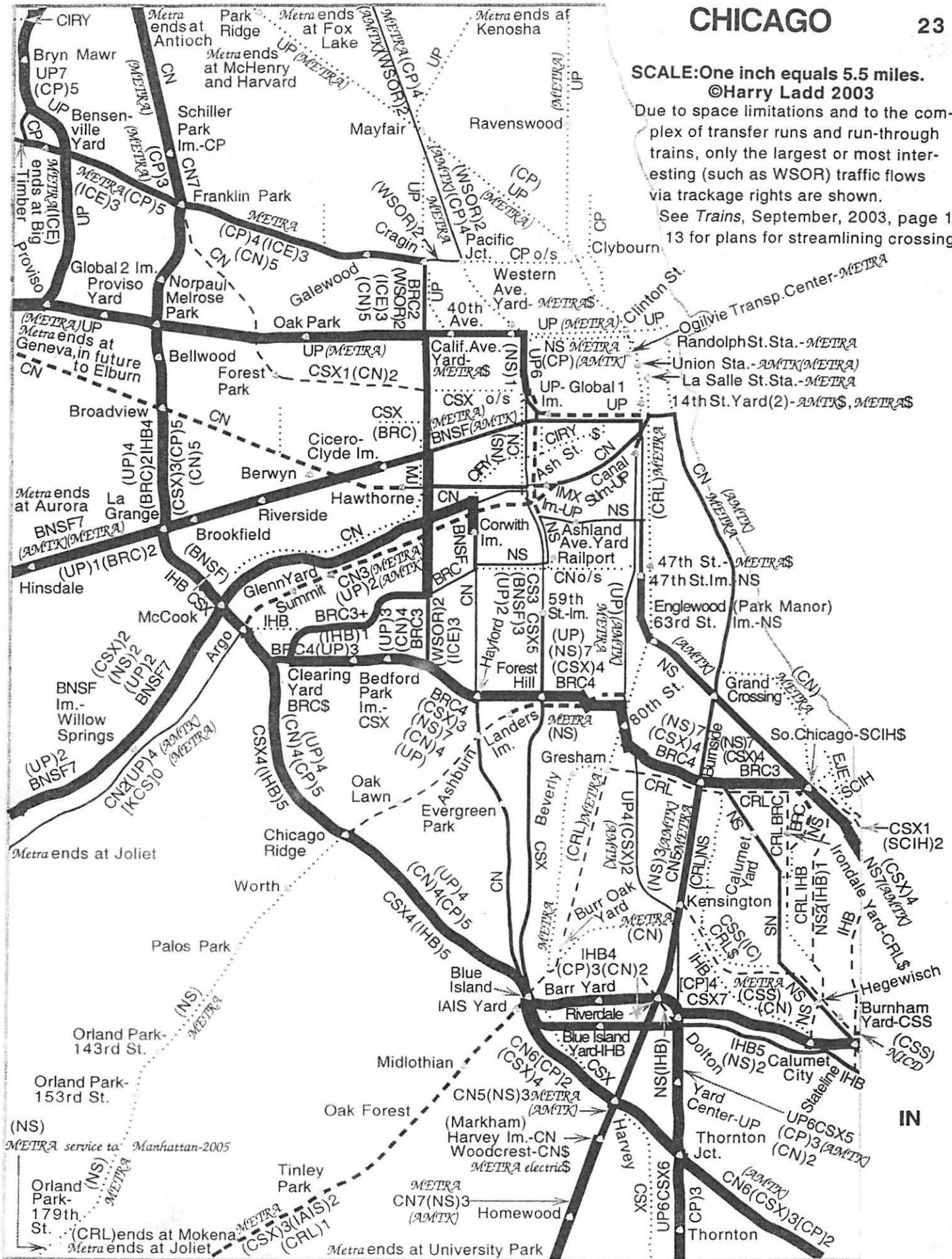


SCALE: One inch equals 5.5 miles.

©Harry Ladd 2003

Due to space limitations and to the complex of transfer runs and run-through trains, only the largest or most interesting (such as WSOR) traffic flows via trackage rights are shown.

See *Trains*, September, 2003, page 10-13 for plans for streamlining crossings.



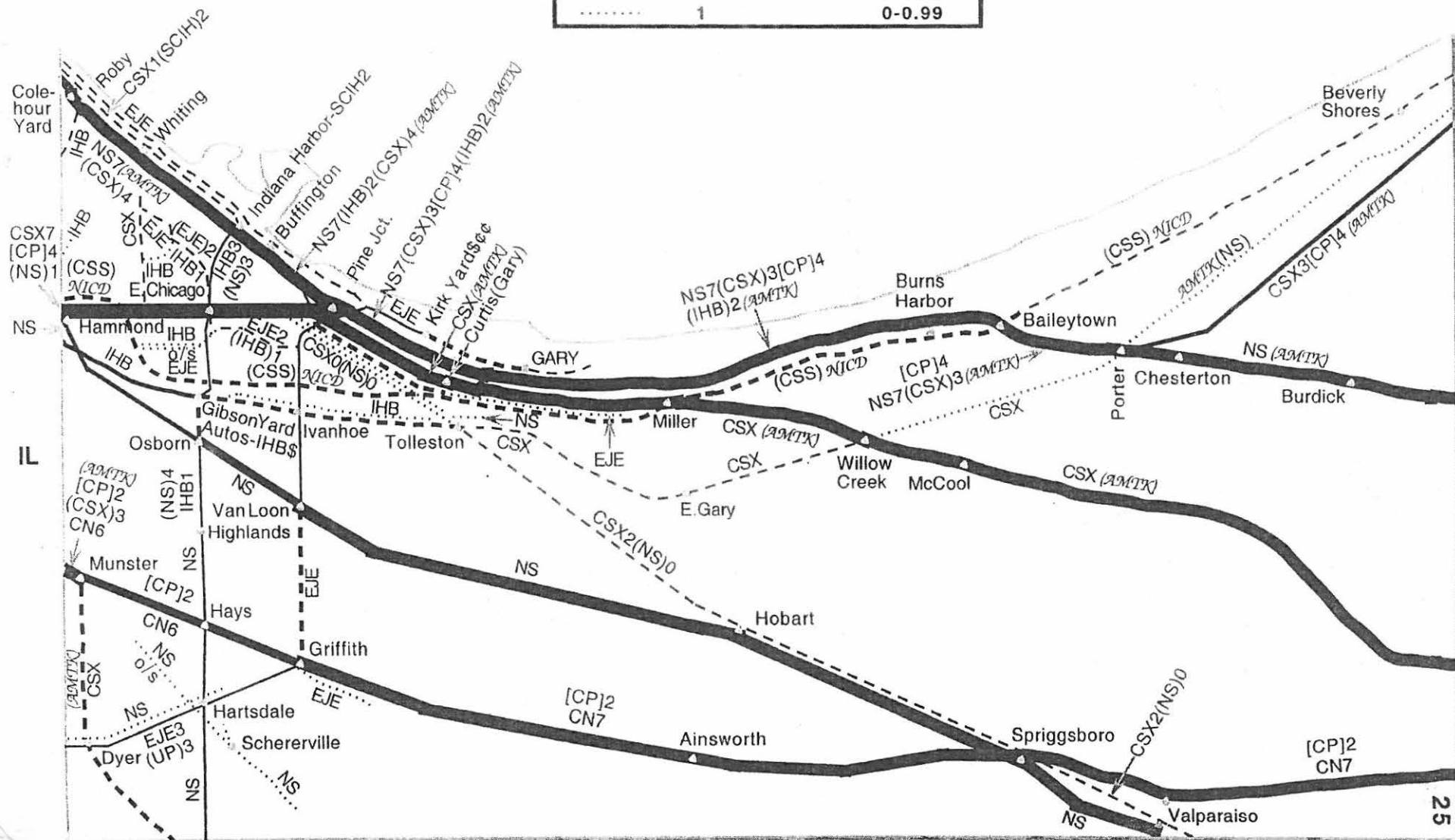
GARY

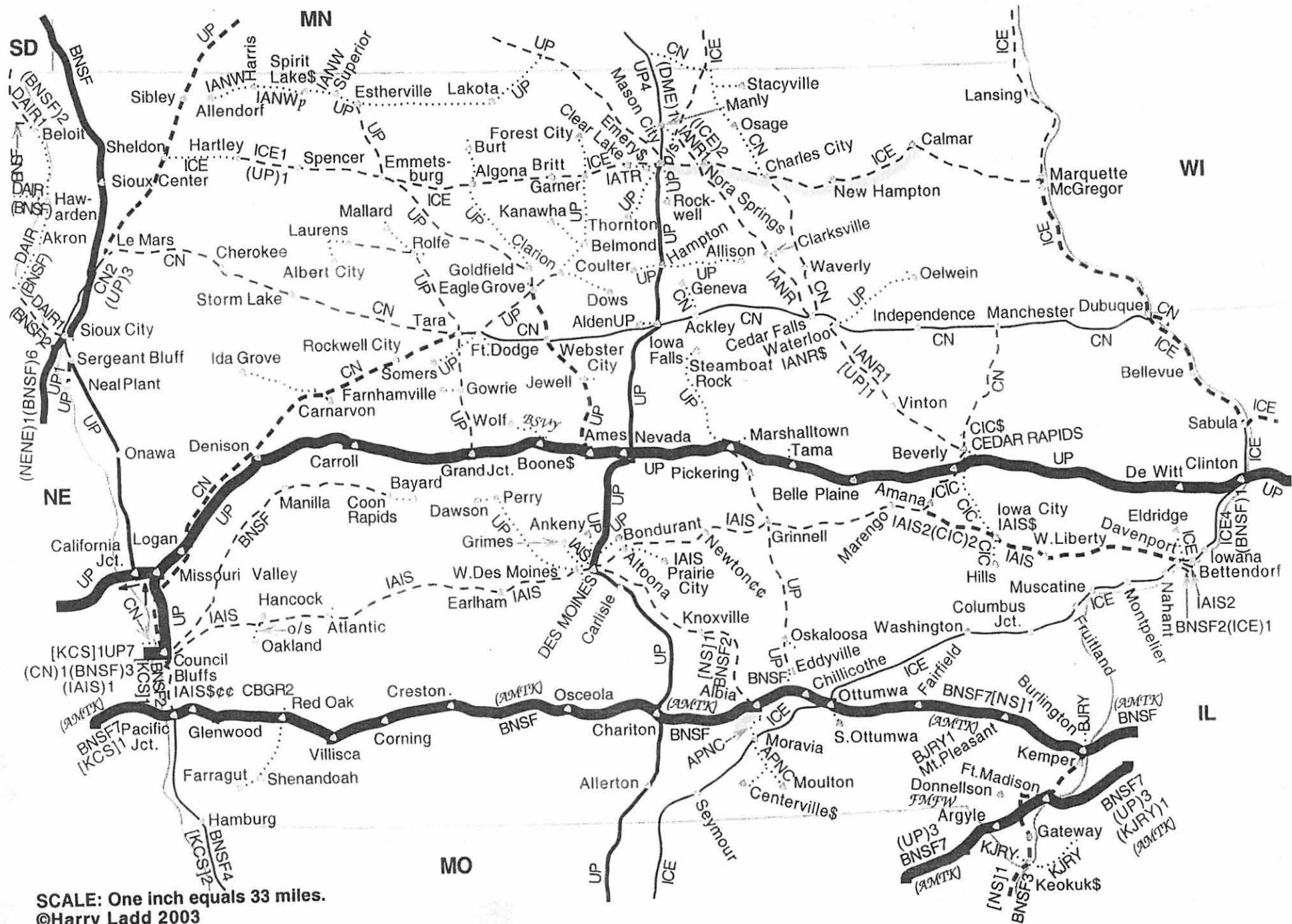
TRAFFIC DENSITY KEY

Tonnage Group	Millions of Gross Ton-Miles per Mile
7	40 PLUS
6	30-39.99
5	20-29.99
4	10-19.99
3	5-9.99
2	1-4.99
1	0-0.99

SCALE: One inch equals 3 miles.

©Harry Ladd 2003





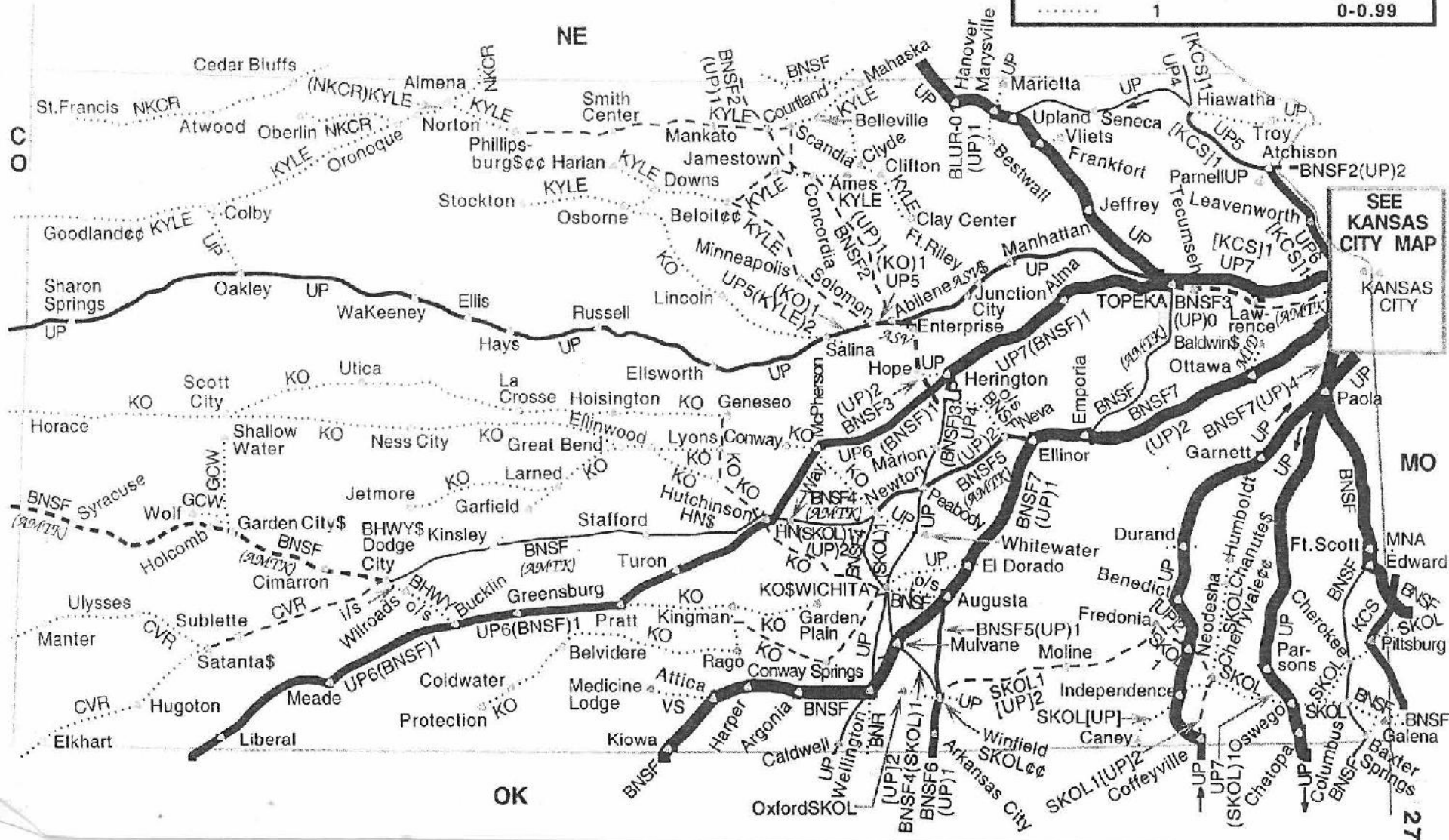
©Harry Ladd 2003

KANSAS

Note: KYLE handles UP traffic, Abilene to Superior, NE.

TRAFFIC DENSITY KEY

Tonnage Group	Millions of Gross Ton-Miles per Mile
7	40 PLUS
6	30-39.99
5	20-29.99
4	10-19.99
3	5-9.99
2	1-4.99
1	0-0.99



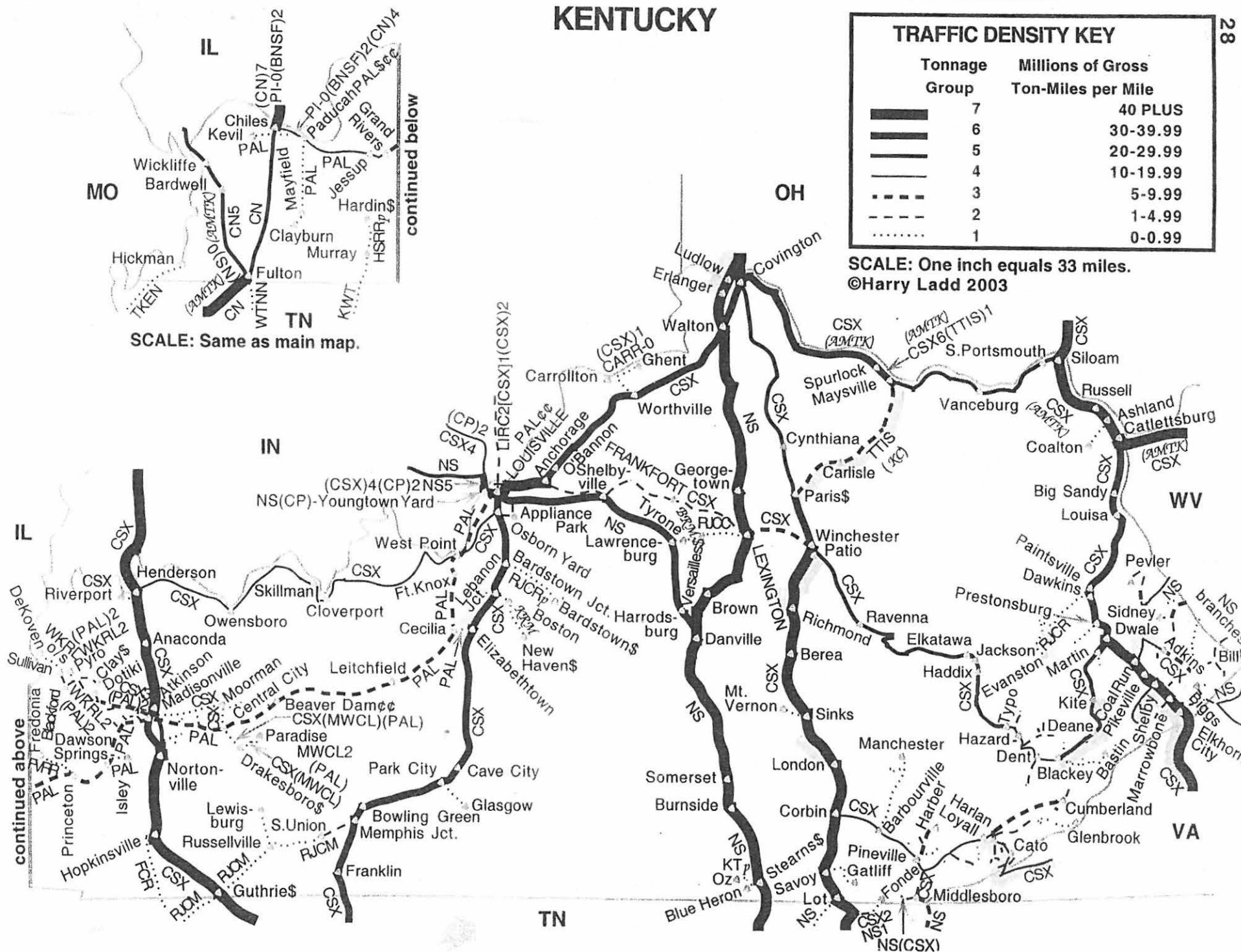
KENTUCKY

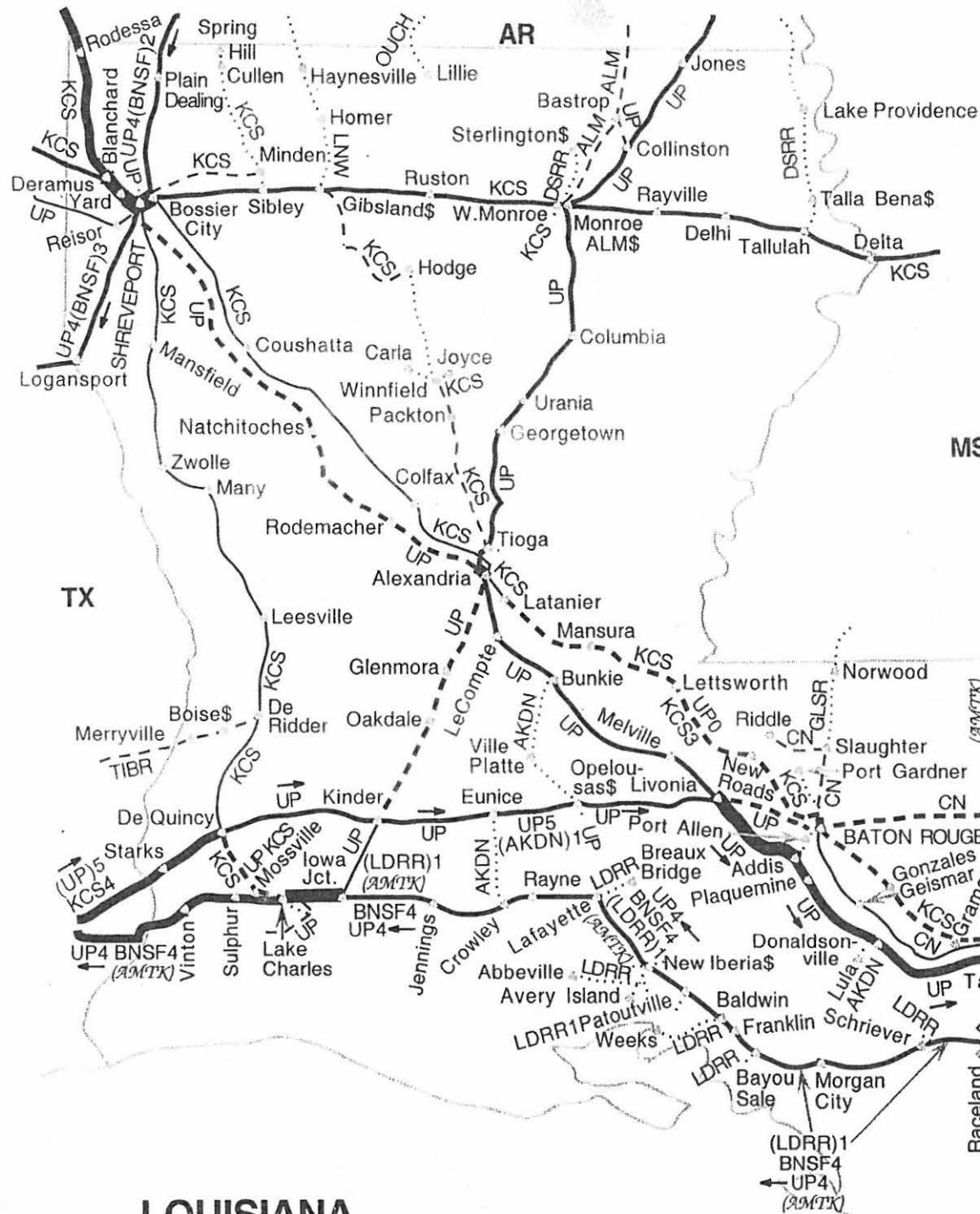
TRAFFIC DENSITY KEY

Tonnage Group	Millions of Gross Ton-Miles per Mile
7	40 PLUS
6	30-39.99
5	20-29.99
4	10-19.99
3	5-9.99
2	1-4.99
1	0-0.99

SCALE: One inch equals 33 miles.
©Harry Ladd 2003

28





TRAFFIC DENSITY KEY

Tonnage Group	Millions of Gross Ton-Miles per Mile
7	40 PLUS
6	30-39.99
5	20-29.99
4	10-19.99
3	5-9.99
2	1-4.99
1	0-0.99

SCALE: One inch equals 36 miles.

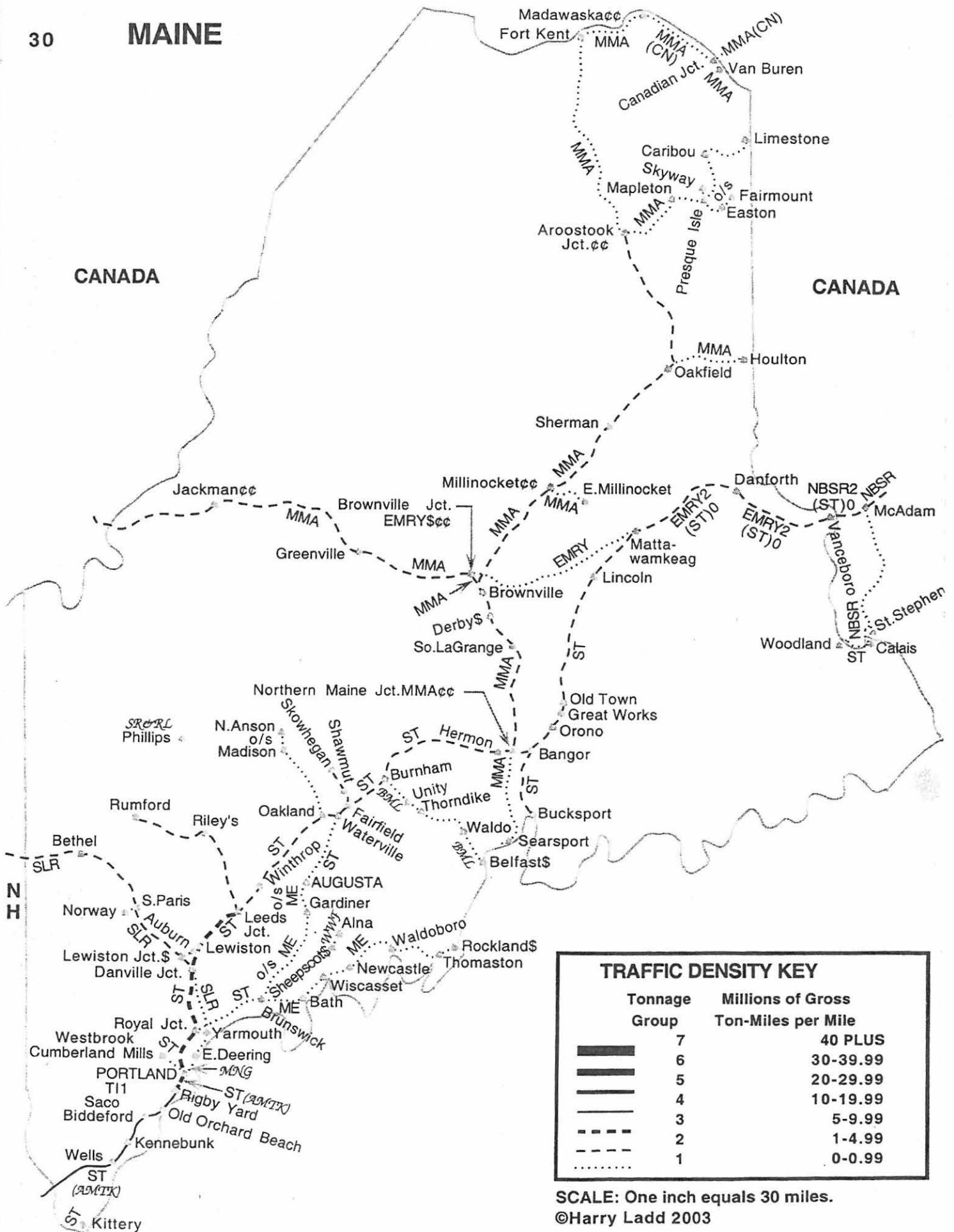
NEW ORLEANS



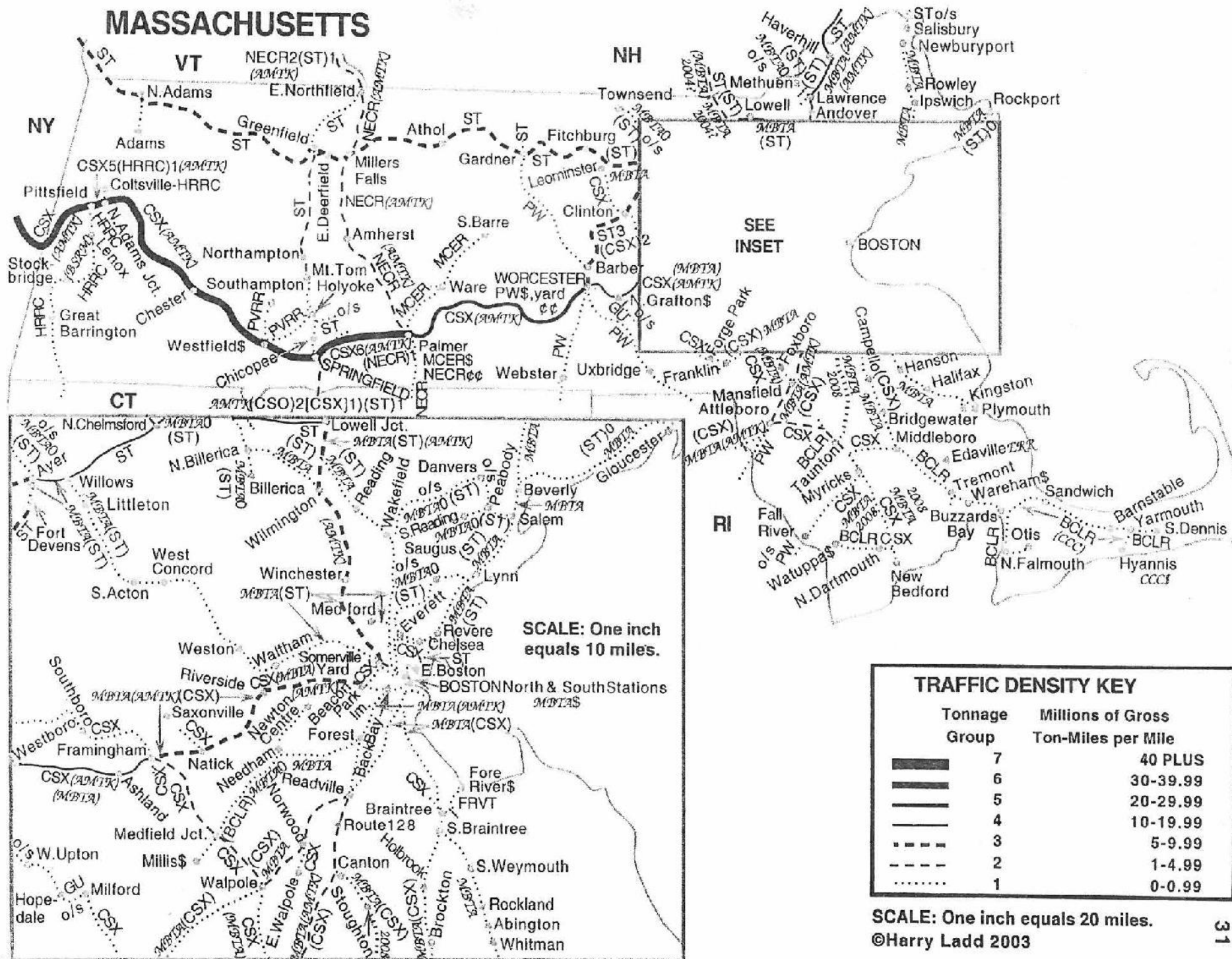
SCALE: One inch equals 11 miles.

©Harry Ladd 2003

LOUISIANA



MASSACHUSETTS



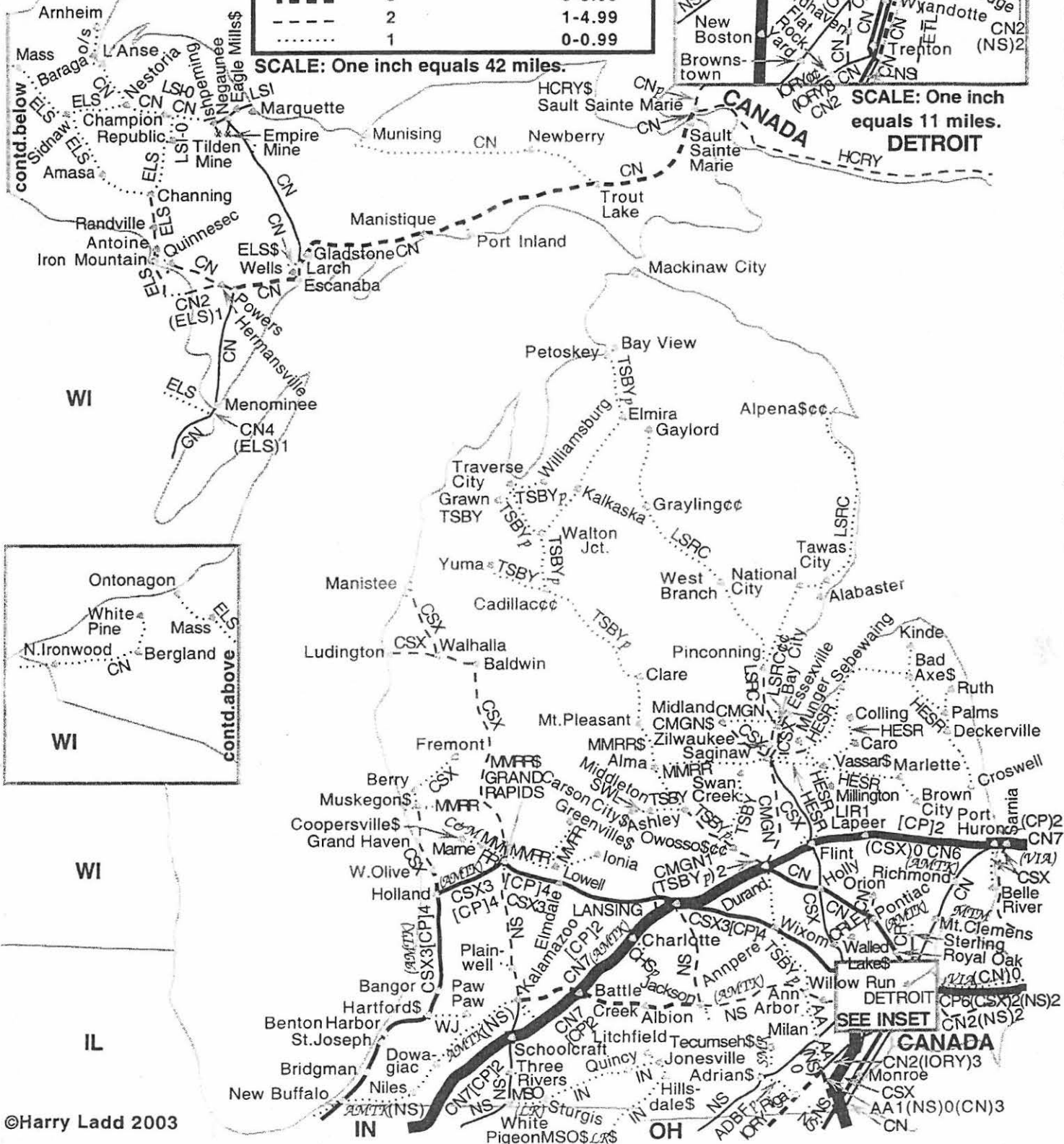
TRAFFIC DENSITY KEY

Tonnage Group	Millions of Gross Ton-Miles per Mile
7	40 PLUS
6	30-39.99
5	20-29.99
4	10-19.99
3	5-9.99
2	1-4.99
1	0-0.99

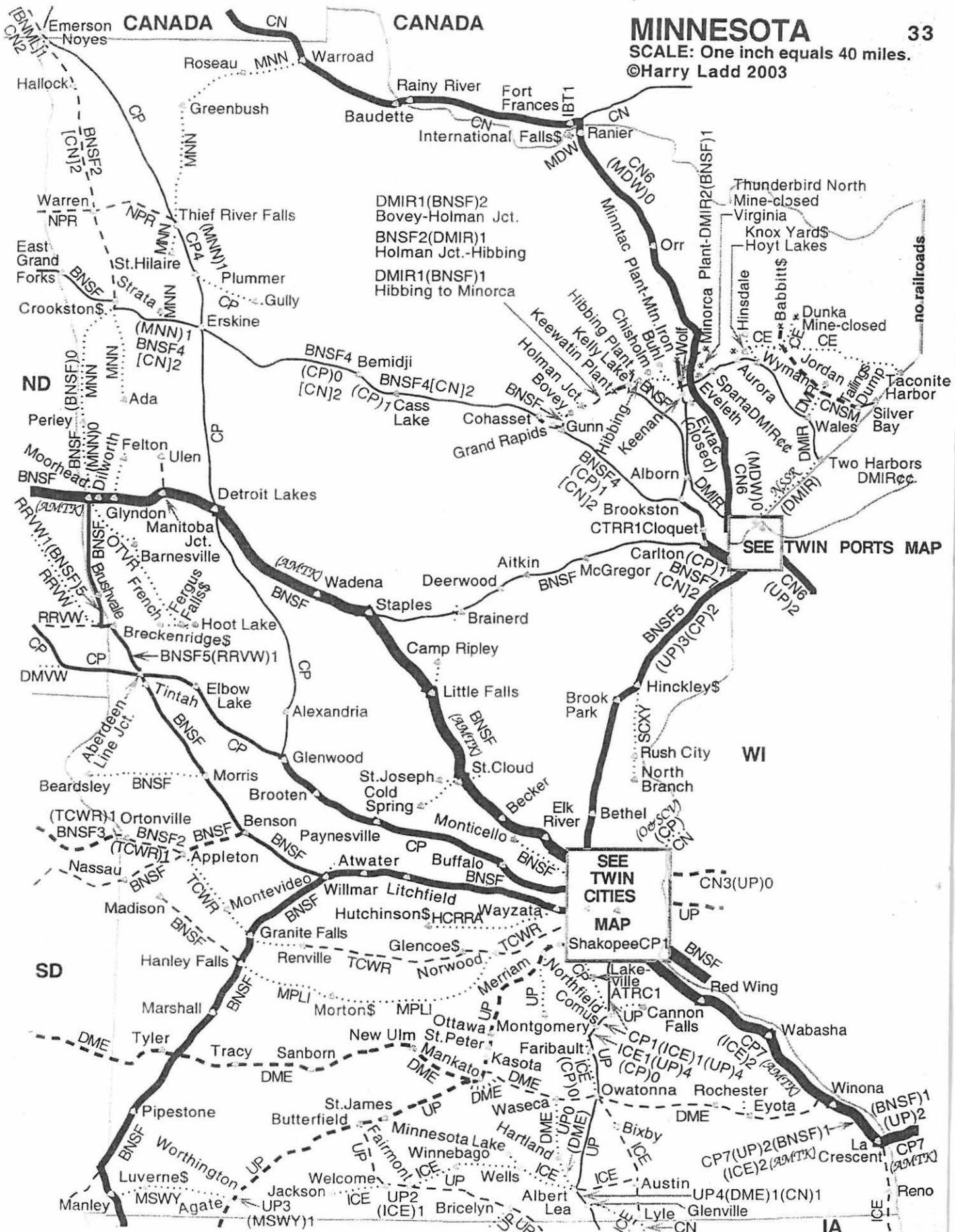
SCALE: One inch equals 42 miles.



SCALE: One inch equals 11 miles.



©Harry Ladd 2003



TWIN CITIES MINNEAPOLIS- ST. PAUL

SCALE: One Inch equals 7 miles.

©Harry Ladd 2003

- 1- New Brighton Yard- CN
- 2- Midway Yard- MNNR
- 3- MNNR1(CN)1(UP)2
- 4- CP1(TCWR)2
- 5- UP1(CP)1(TCWR)2

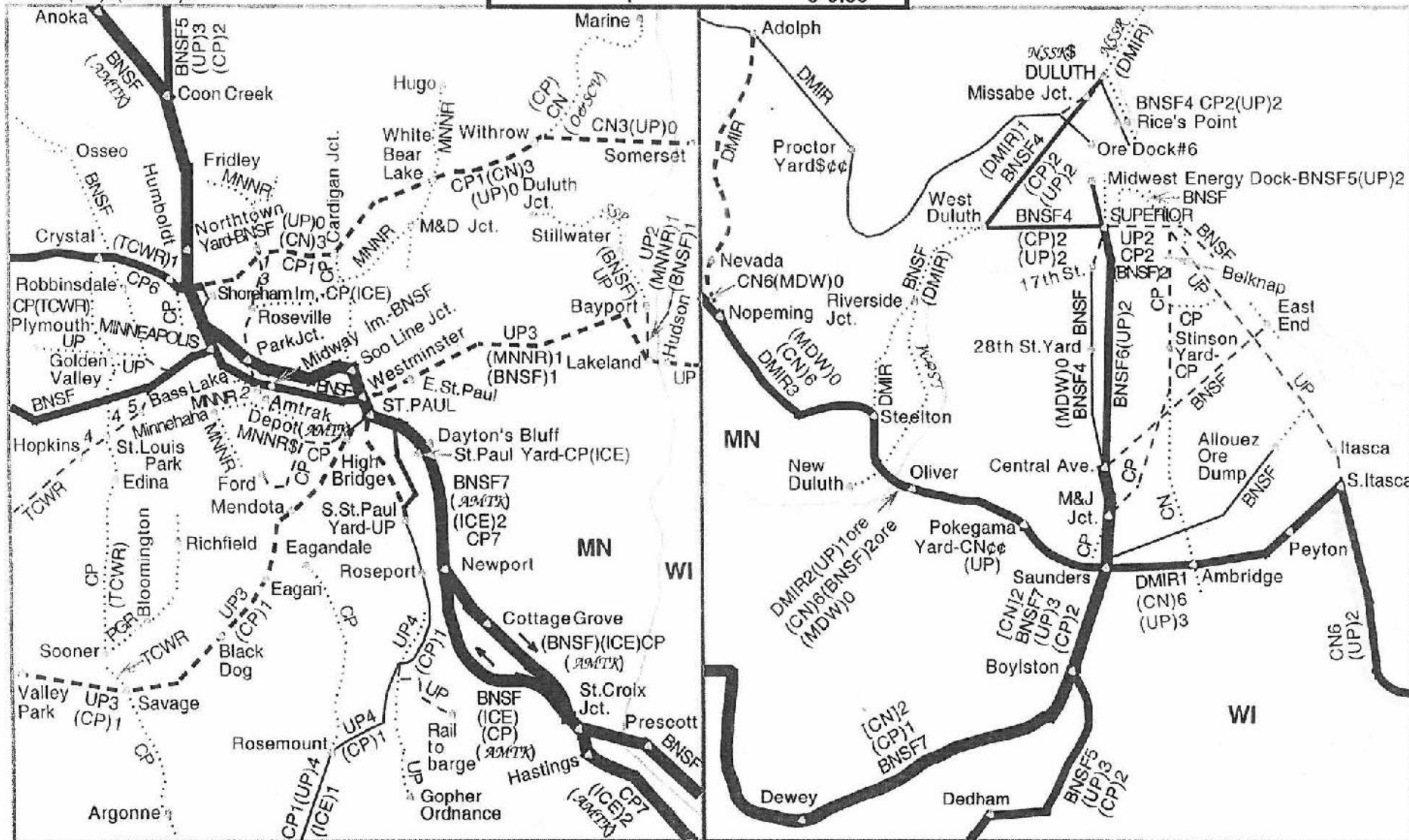
TRAFFIC DENSITY KEY

Tonnage Group	Millions of Gross Ton-Miles per Mile
	7 40 PLUS
	6 30-39.99
	5 20-29.99
	4 10-19.99
	3 5-9.99
	2 1-4.99
	1 0-0.99

TWIN PORTS DULUTH- SUPERIOR

SCALE: One inch equals 2-2/3 miles.

©Harry Ladd 2003



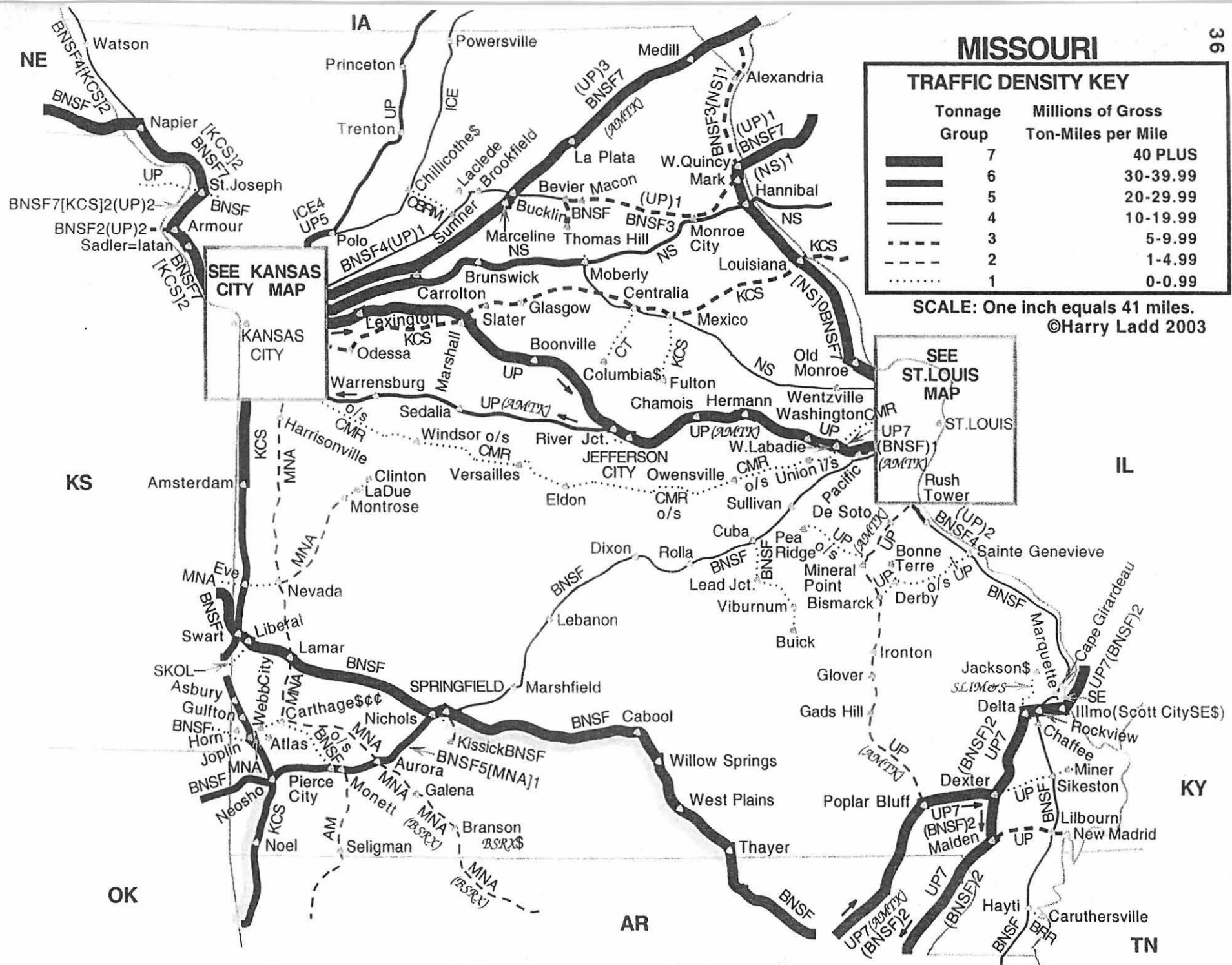
MISSOURI

36

TRAFFIC DENSITY KEY

Tonnage Group	Millions of Gross Ton-Miles per Mile
7	40 PLUS
6	30-39.99
5	20-29.99
4	10-19.99
3	5-9.99
2	1-4.99
1	0-0.99

SCALE: One inch equals 41 miles.
©Harry Ladd 2003



SEE KANSAS CITY MAP

SEE ST. LOUIS MAP

KANSAS CITY

SCALE: One inch equals 8 miles.
©Harry Ladd 2003

BNSF7(UP)7(AMTK) on ex-KCTV, Rock Creek to Kansas state border.

- 1- Armourdale Yard- UP6 (coal and grain)
- 2- Neff Yard- UP(MNA)cc

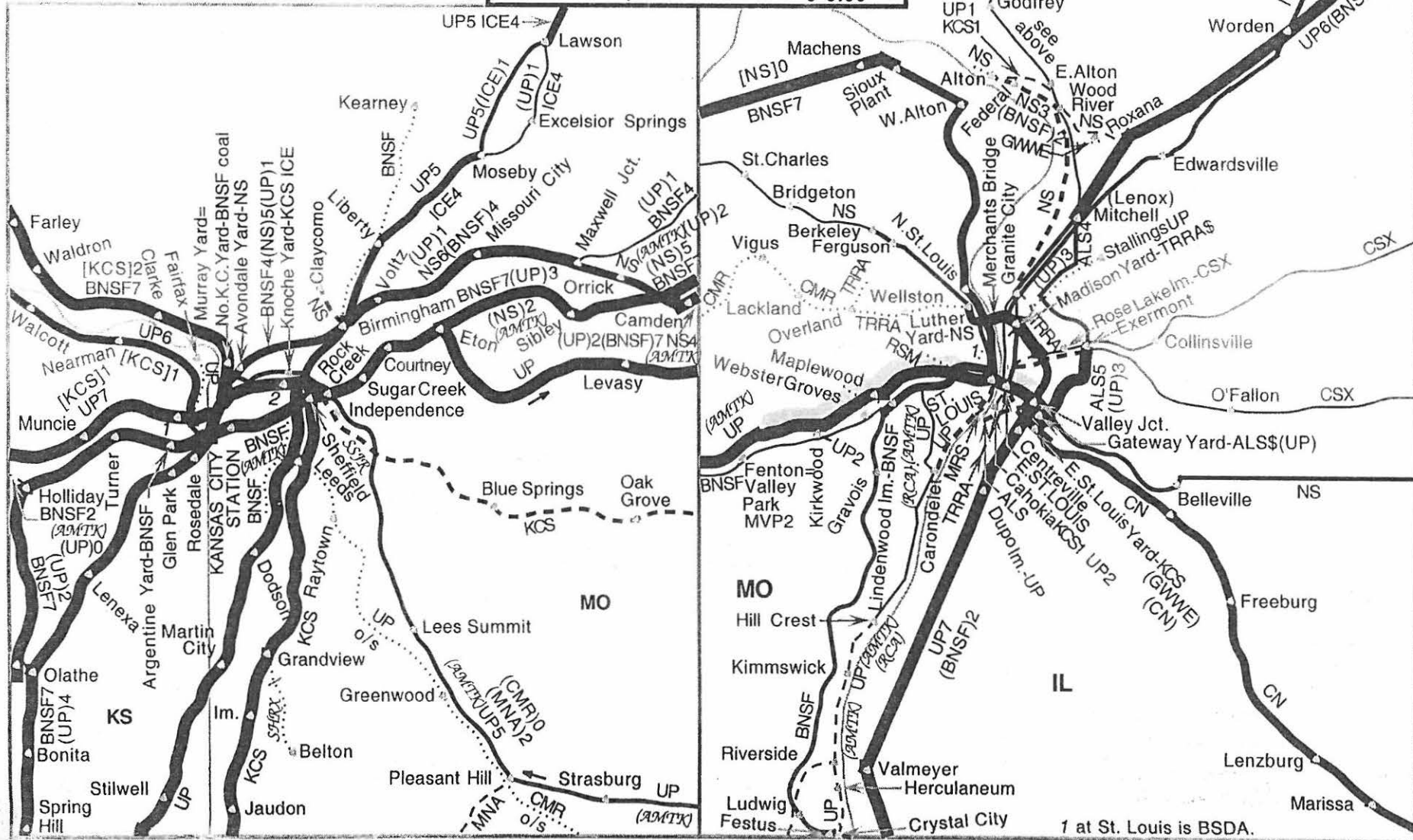
TRAFFIC DENSITY KEY

Tonnage Group	Millions of Gross Ton-Miles per Mile
7	40 PLUS
6	30-39.99
5	20-29.99
4	10-19.99
3	5-9.99
2	1-4.99
1	0-0.99

SAINT LOUIS

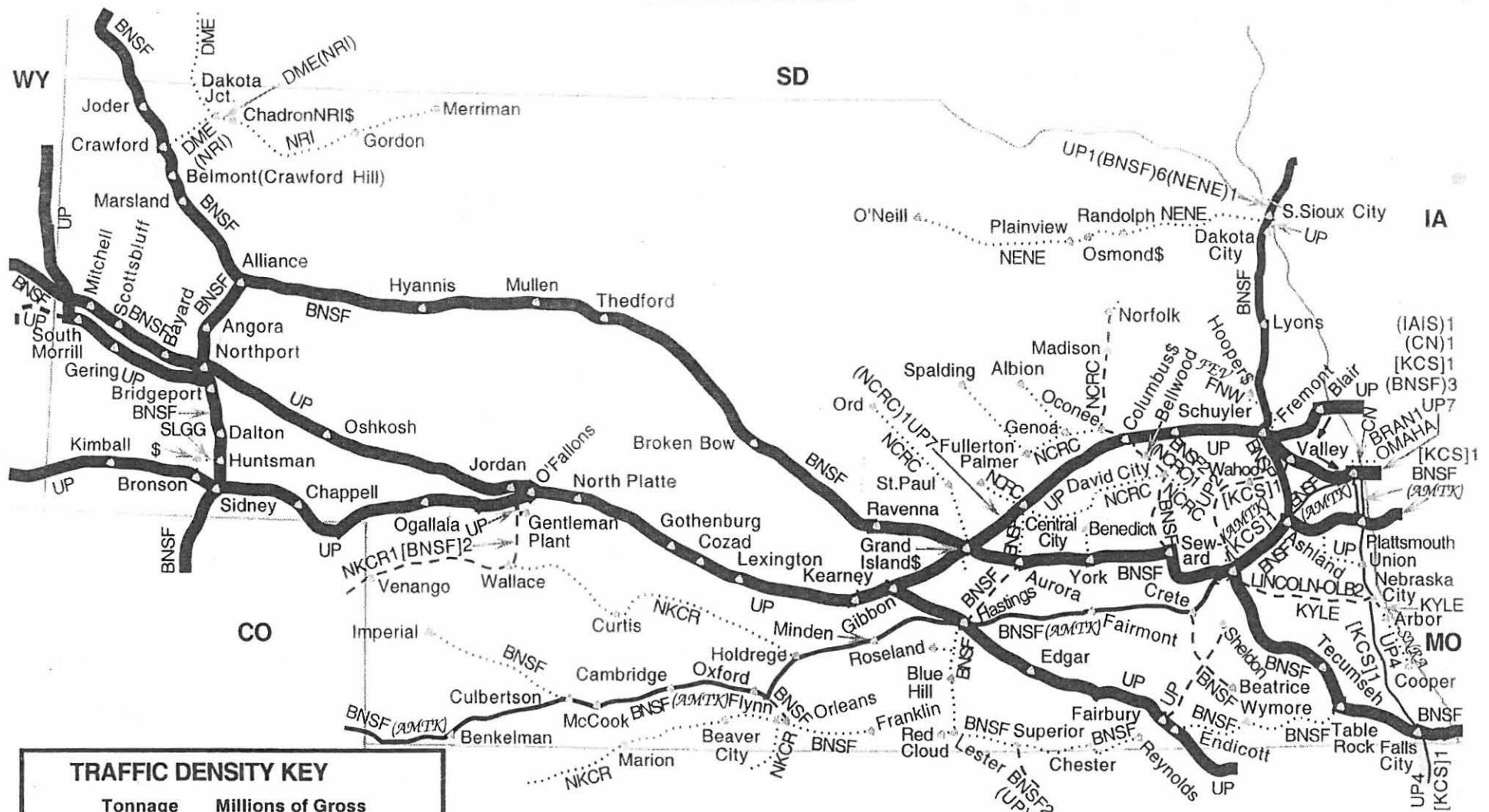
SCALE: One inch equals 8.5 miles.
©Harry Ladd 2003

UP7ALS2?MRS2(RCA)-MacArthur Bridge at E.St.Louis.
TRRA4?(NS)6(BNSF)4(UP)4(AMTK)(RCA)-Merchants Bridge.
KCS3-from Godfrey to E.St.Louis Yard; UP3-Godfrey to Mitchell, UP4-Mitchell to Granite City, UP4-to E.St.Louis
GWWE1-joint with KCS and UP, Granite City to E.Alton.
(BNSF)4-Granite City to Mitchell, (BNSF)2-to Wood River.



1 at St. Louis is BSDA.

NEBRASKA



TRAFFIC DENSITY KEY

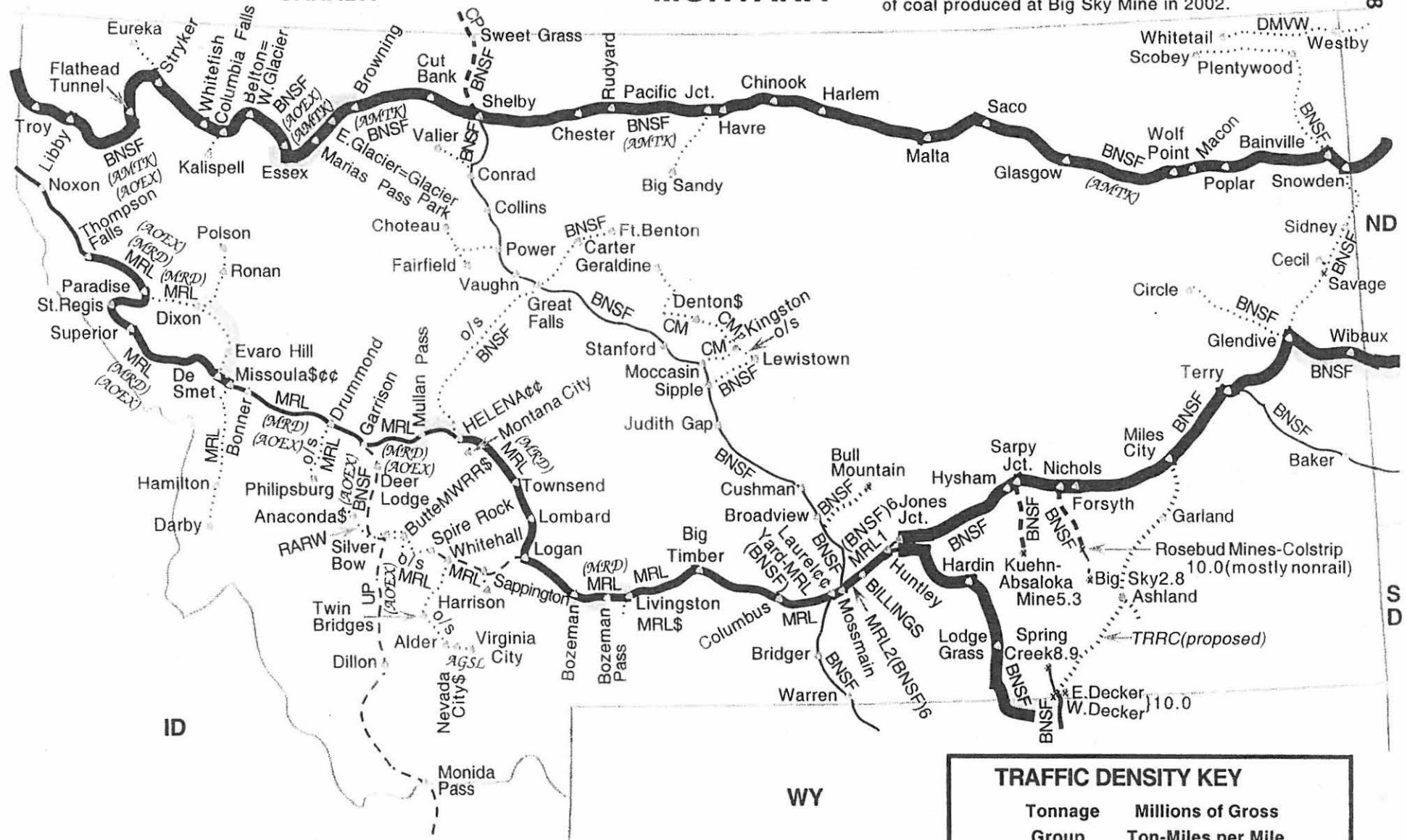
Tonnage Group	Millions of Gross Ton-Miles per Mile
7	40 PLUS
6	30-39.99
5	20-29.99
4	10-19.99
3	5-9.99
2	1-4.99
1	0-0.99

SCALE: One inch equals 45 miles.
©Harry Ladd 2003

CANADA

MONTANA

"Big Sky 2.8" indicates 2.8 million (net) tons of coal produced at Big Sky Mine in 2002.

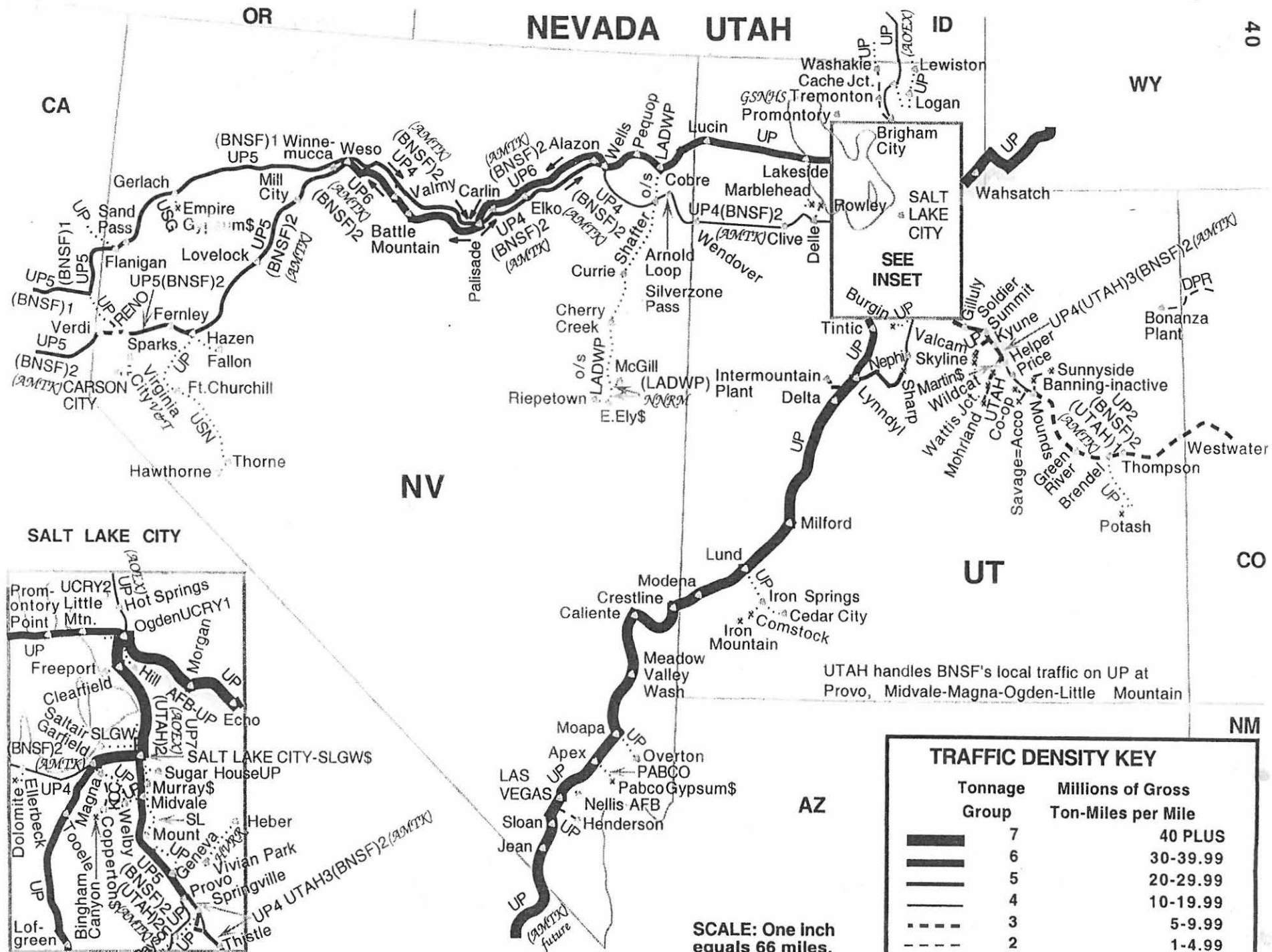


SCALE: One inch equals 55 miles.

©Harry Ladd 2003

TRAFFIC DENSITY KEY

Tonnage Group	Millions of Gross Ton-Miles per Mile
7	40 PLUS
6	30-39.99
5	20-29.99
4	10-19.99
3	5-9.99
2	1-4.99
1	0-0.99

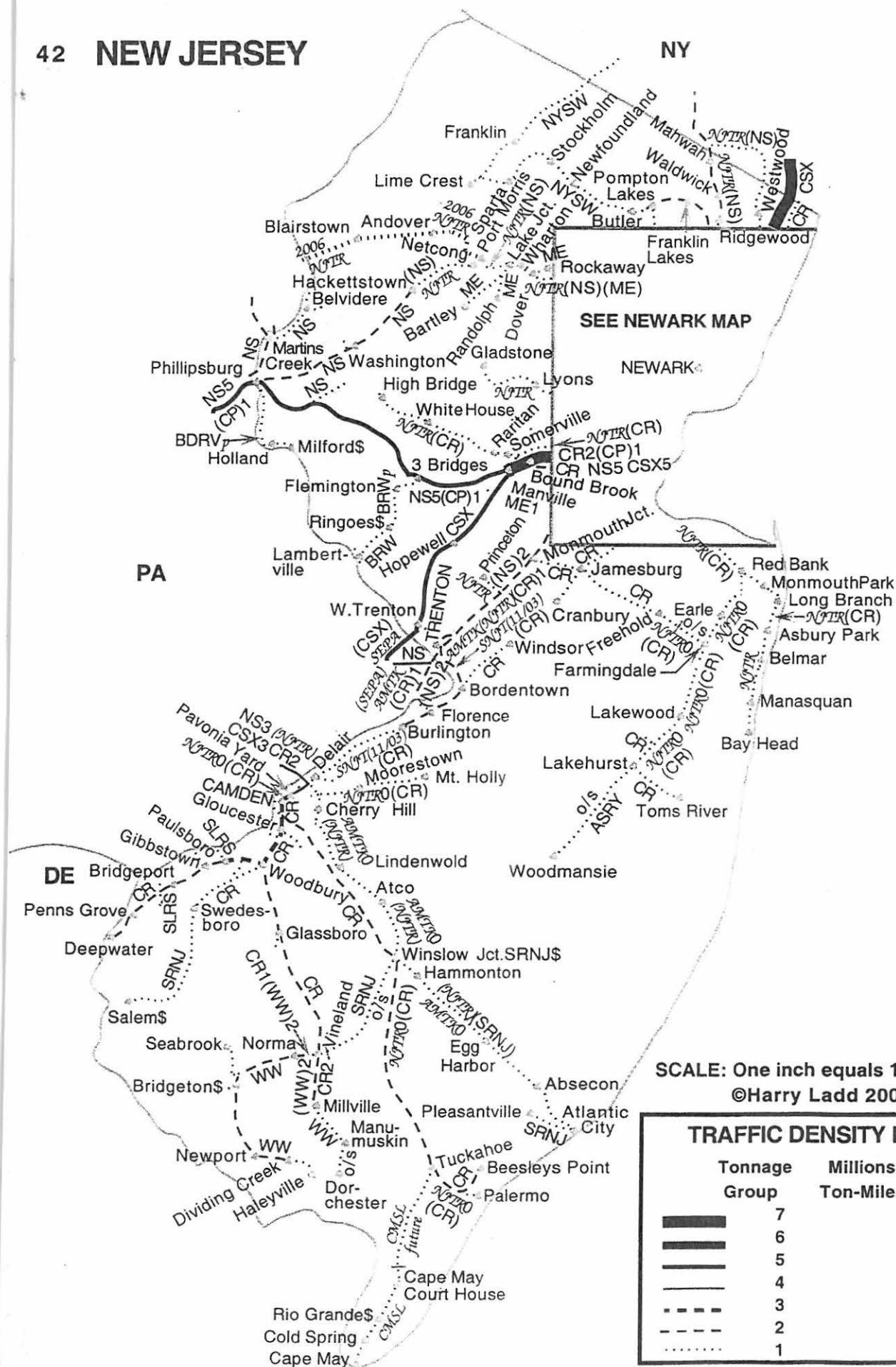


41

SCALE: One inch equals 18 miles.
©Harry Ladd 2003

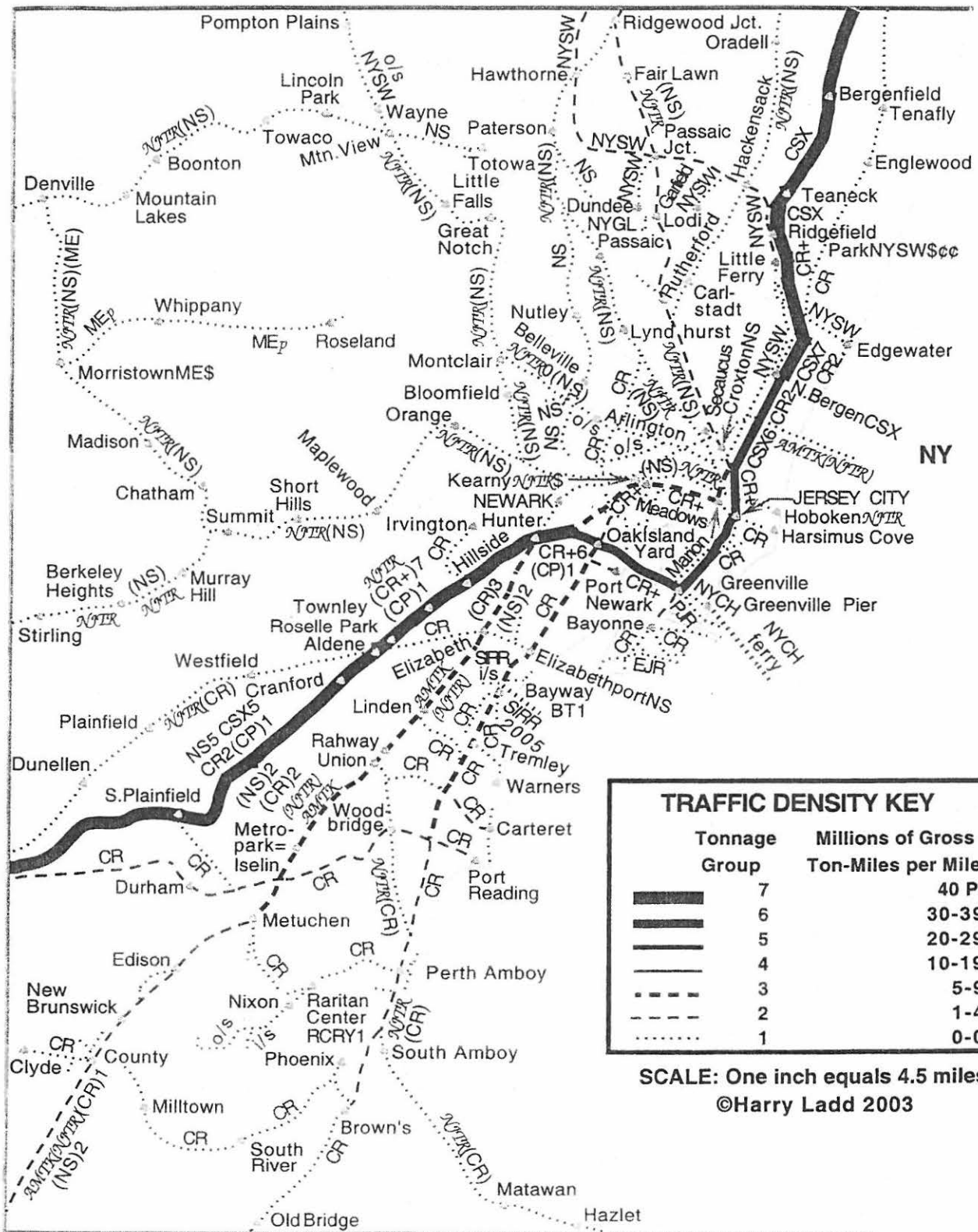
SCALE: One inch equals 18 miles.
©Harry Ladd 2003

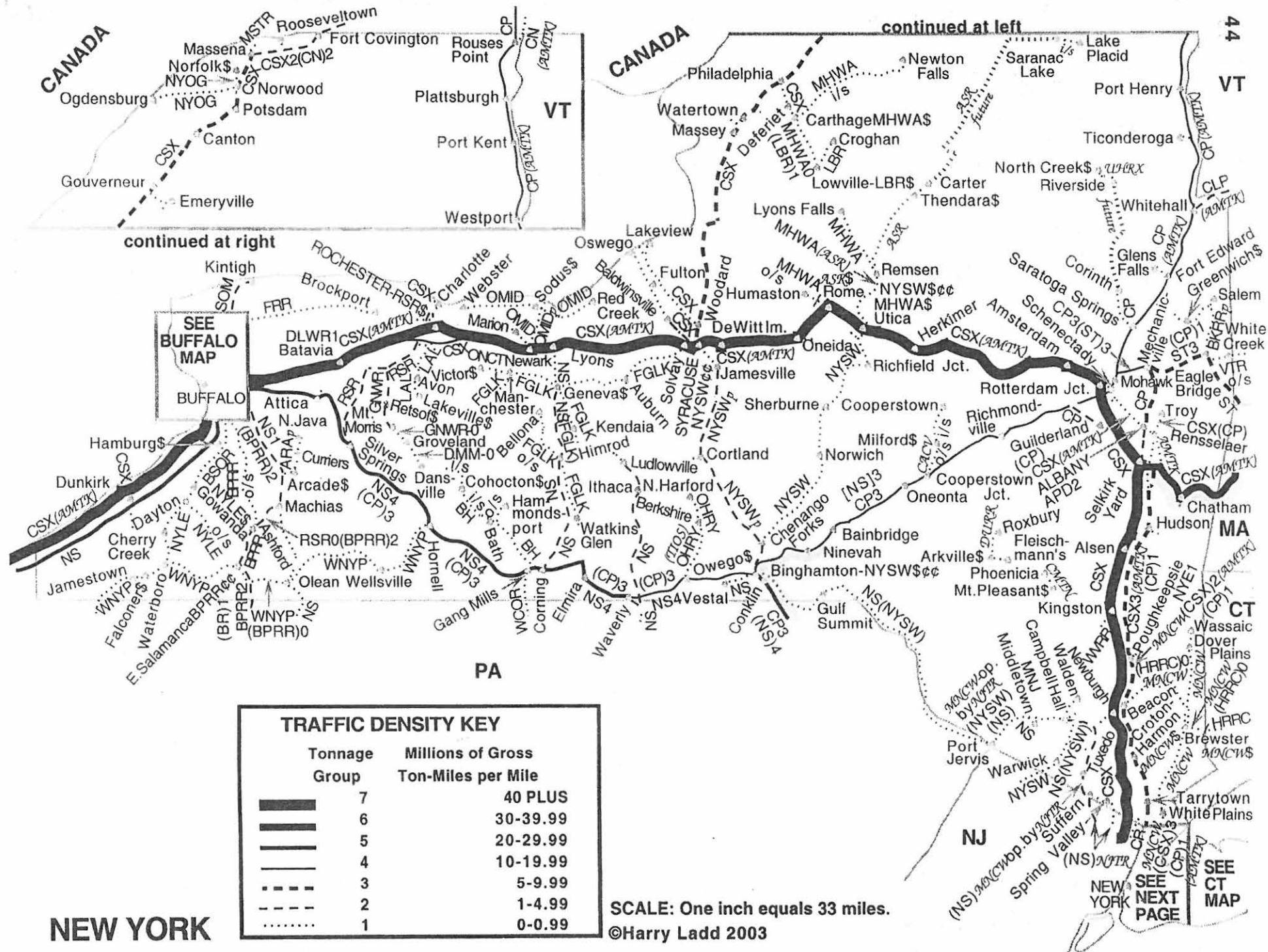
MA



NEWARK

43





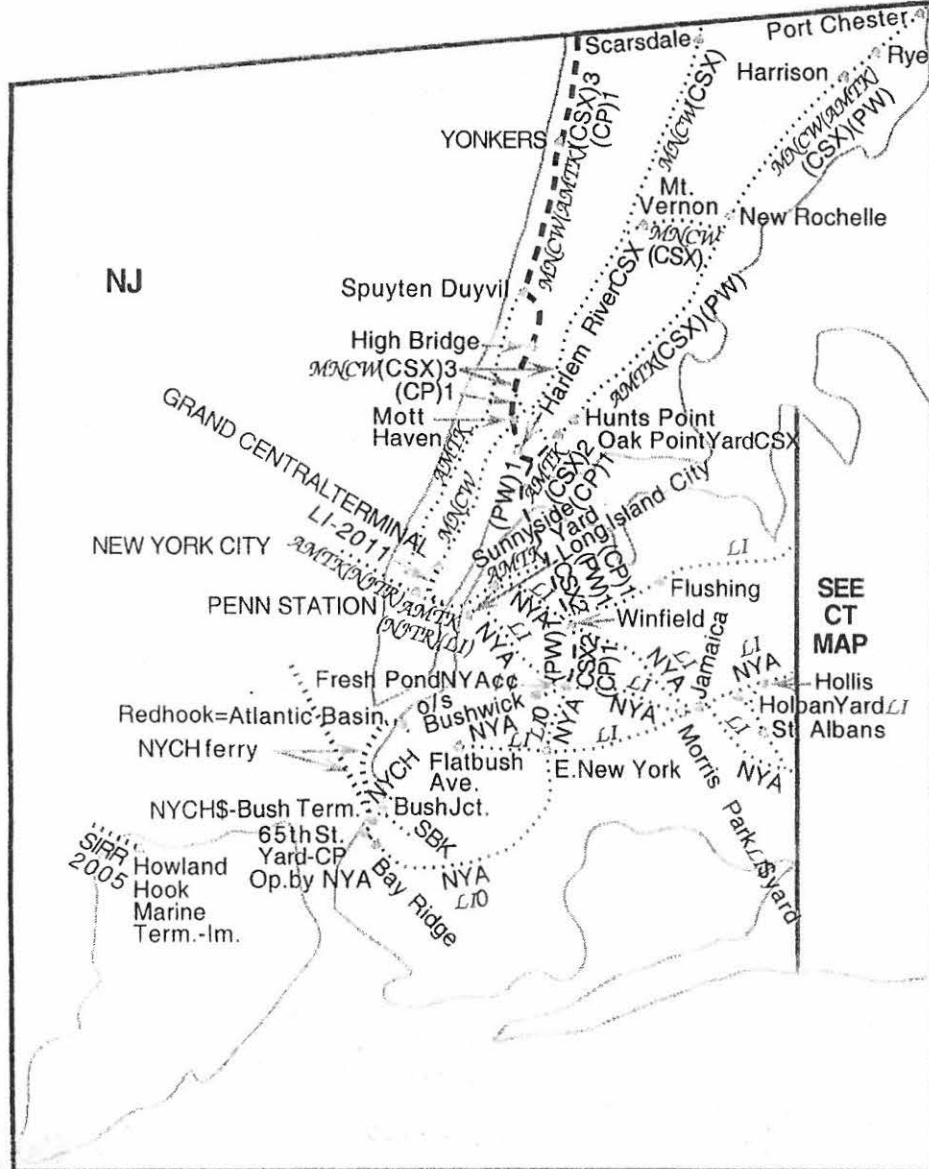
NEW YORK

SCALE: One inch equals 33 miles.

©Harry Ladd 2003

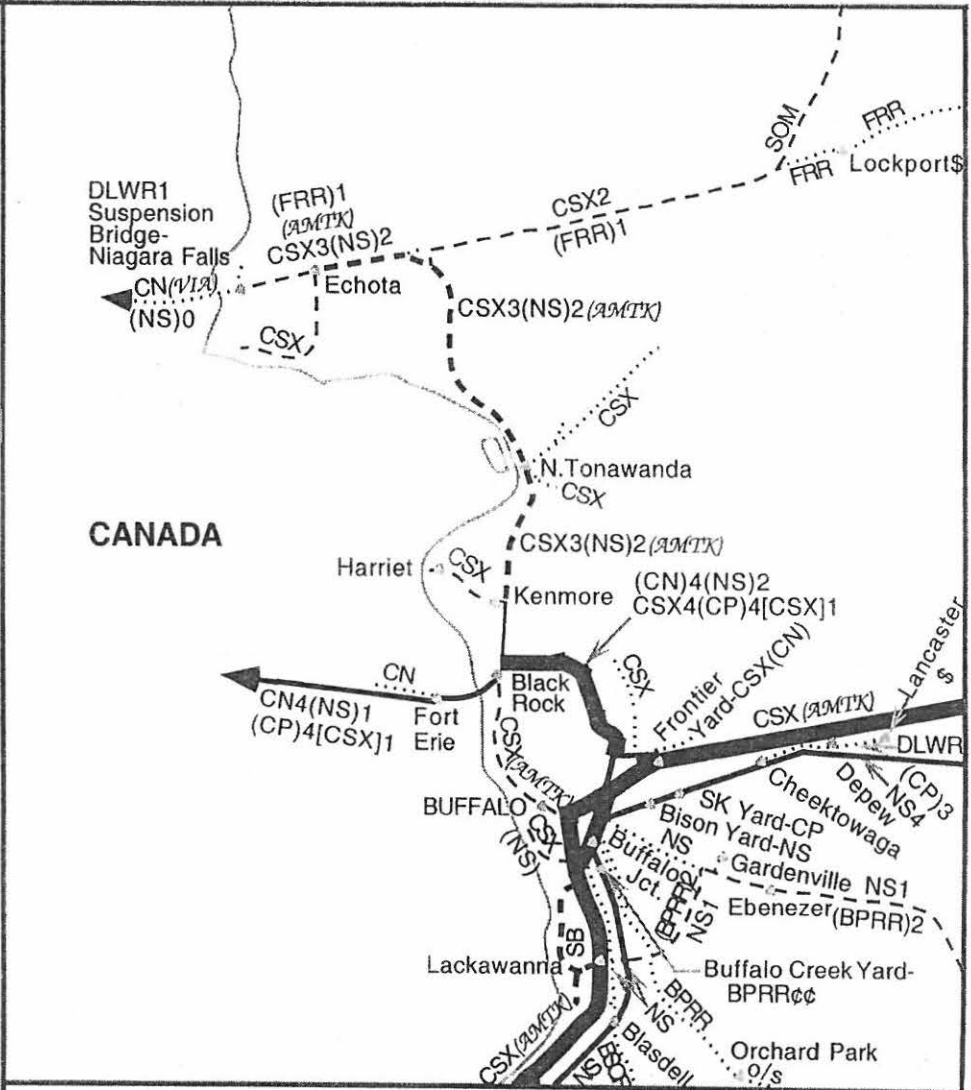
NEW YORK CITY

SCALE: One inch equals 6 miles.



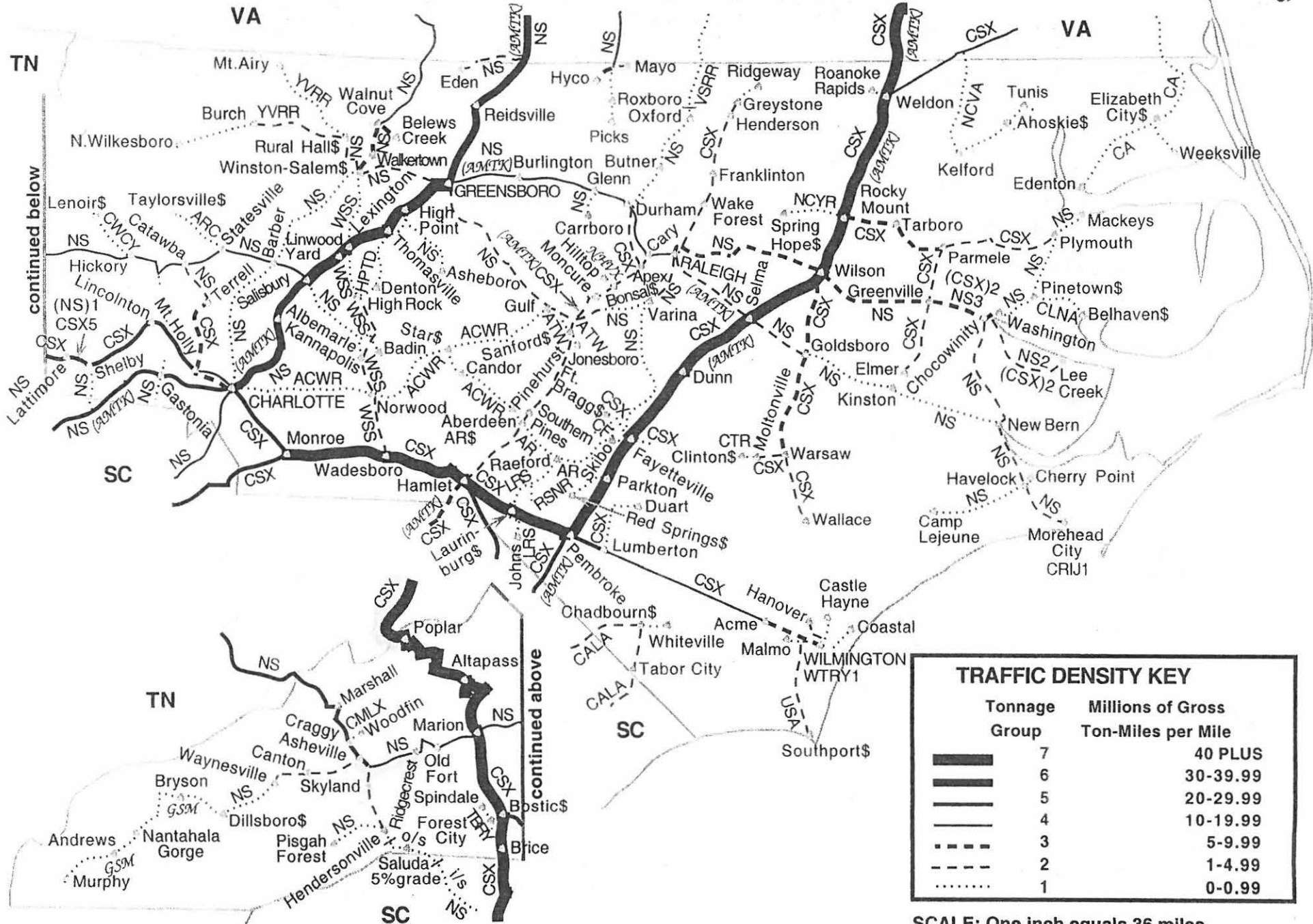
BUFFALO

SCALE: One inch equals 5.5 miles.



NORTH CAROLINA

46



SCALE: One inch equals 36 miles.

©Harry Ladd 2003

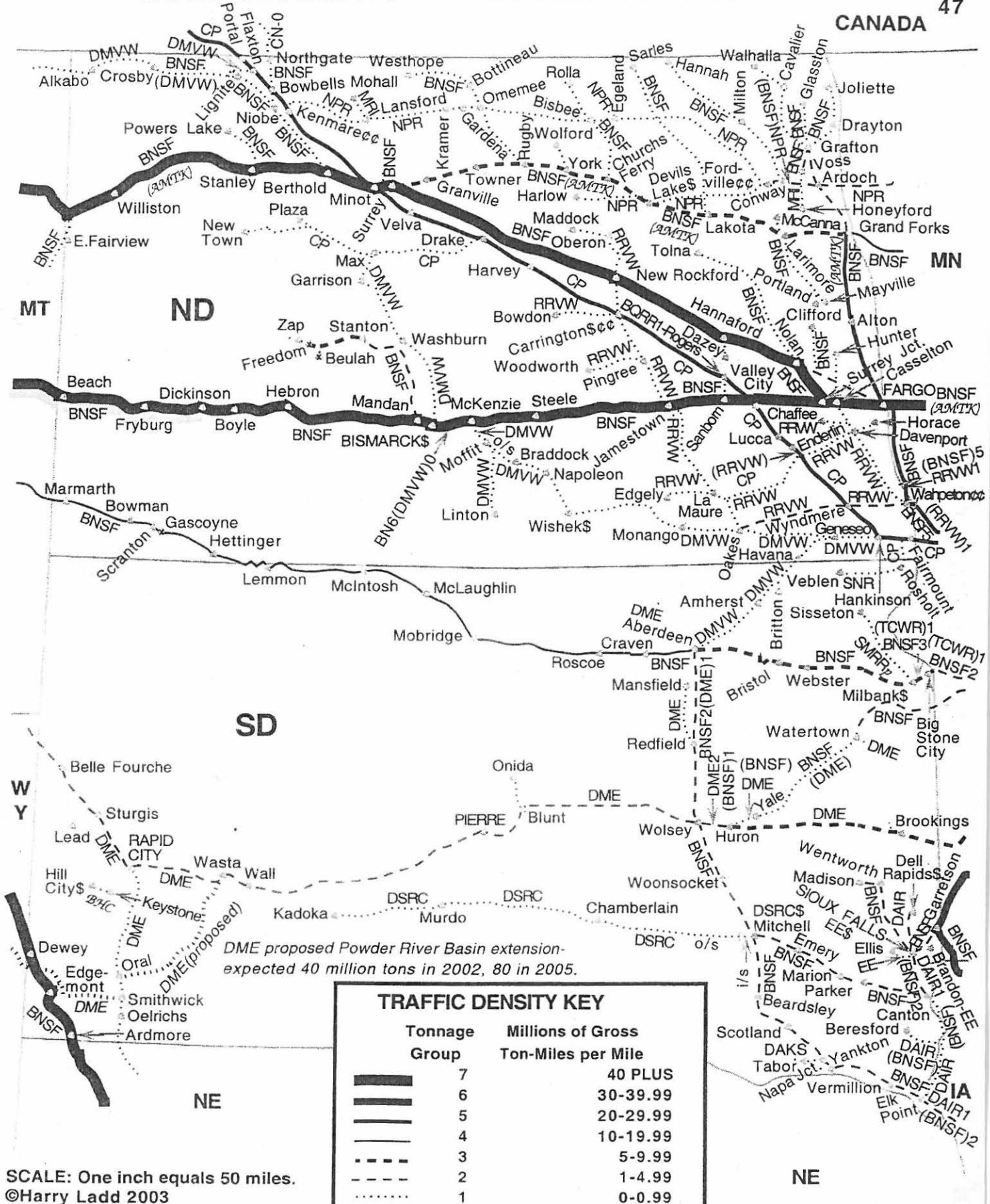
Same scale as main map.

NORTH DAKOTA

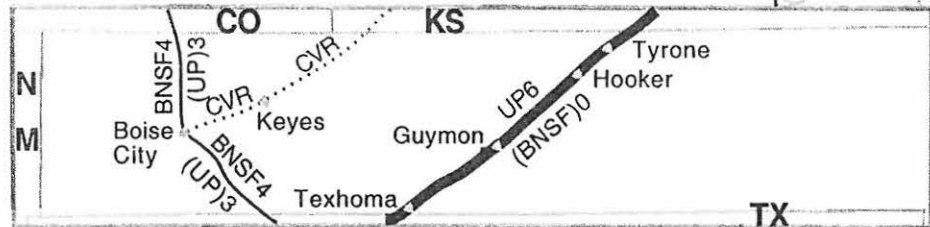
SOUTH DAKOTA

CANADA

47



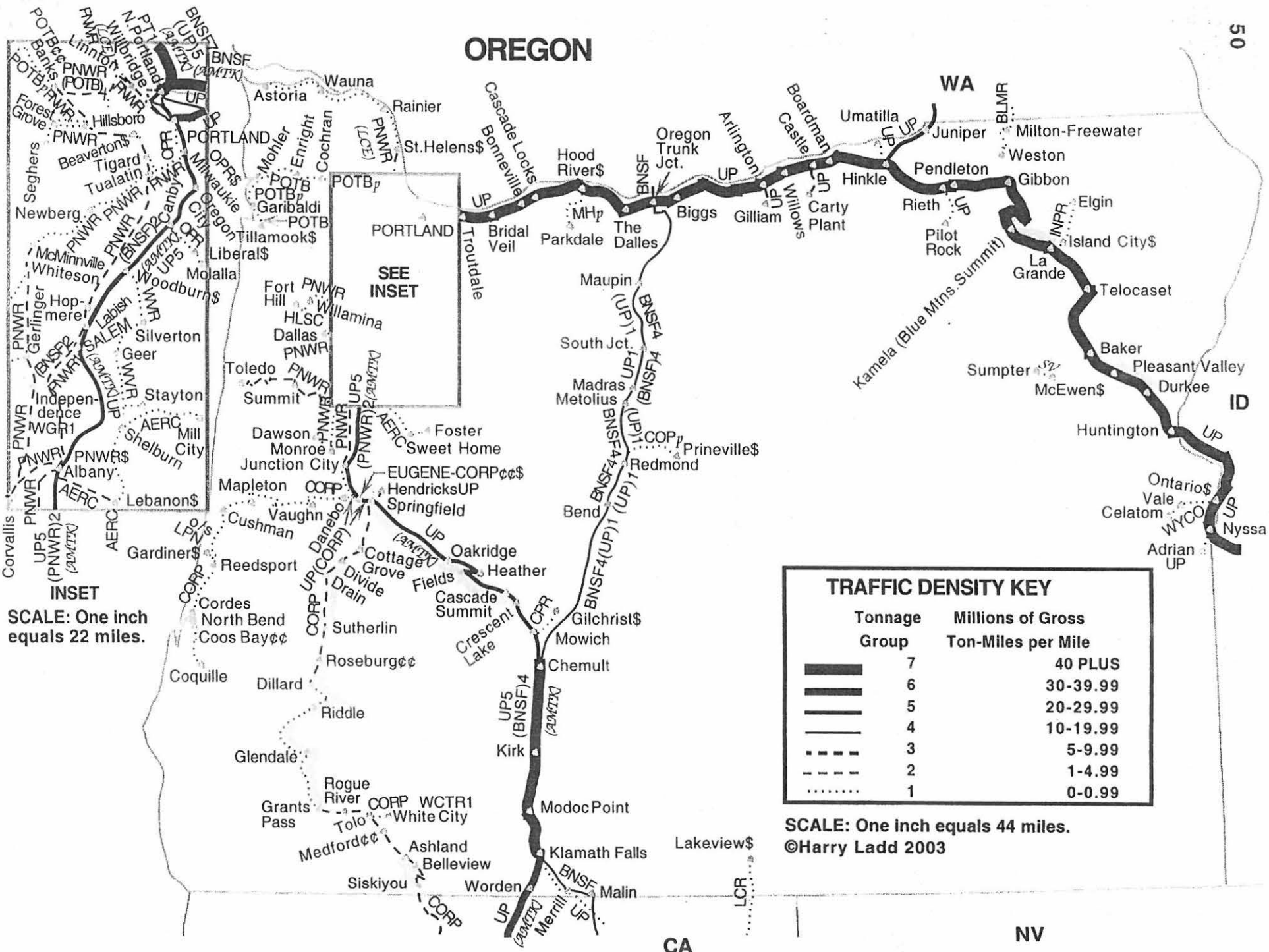
TX



OKLAHOMA

SCALE: One inch equals 35 miles.
©Harry Ladd 2003

OREGON



CA

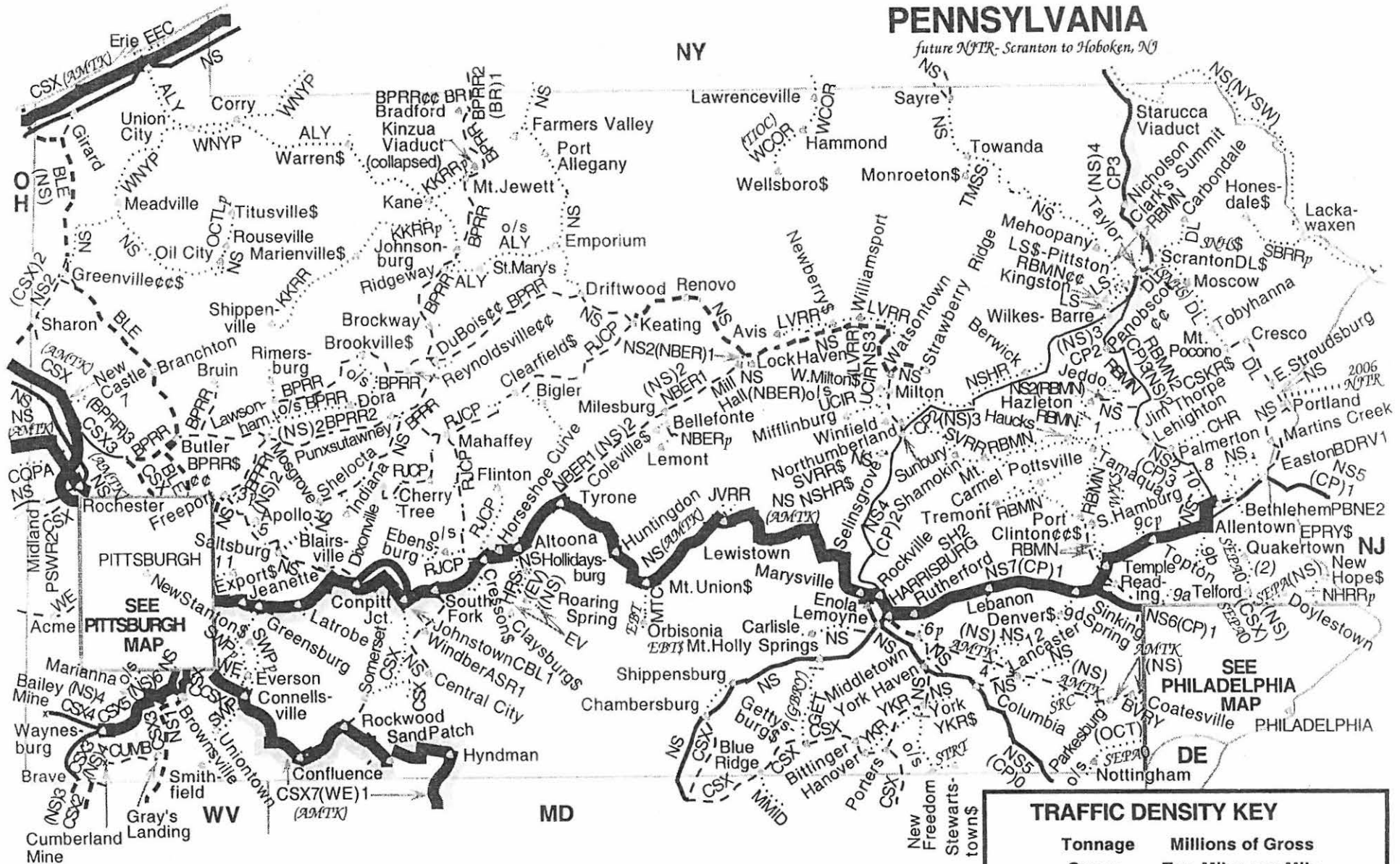
NV

50

PENNSYLVANIA

future NTR: Scranton to Hoboken, NJ

NY



All of the following are tonnage group 1.

- | | | | |
|---------------------|---------------------|------|------|
| 1=CSKR(AMTK)(RBMN)5 | MCLR | 9abc | PRL |
| 2 EPRY | 6 MIDH _p | 10 | RJCN |
| 3 KJR _p | 7 NCIR | 11 | TCKR |
| 4 LNV | 8 NDCR | 12 | TYBR |

SCALE: One inch equals 29 miles.

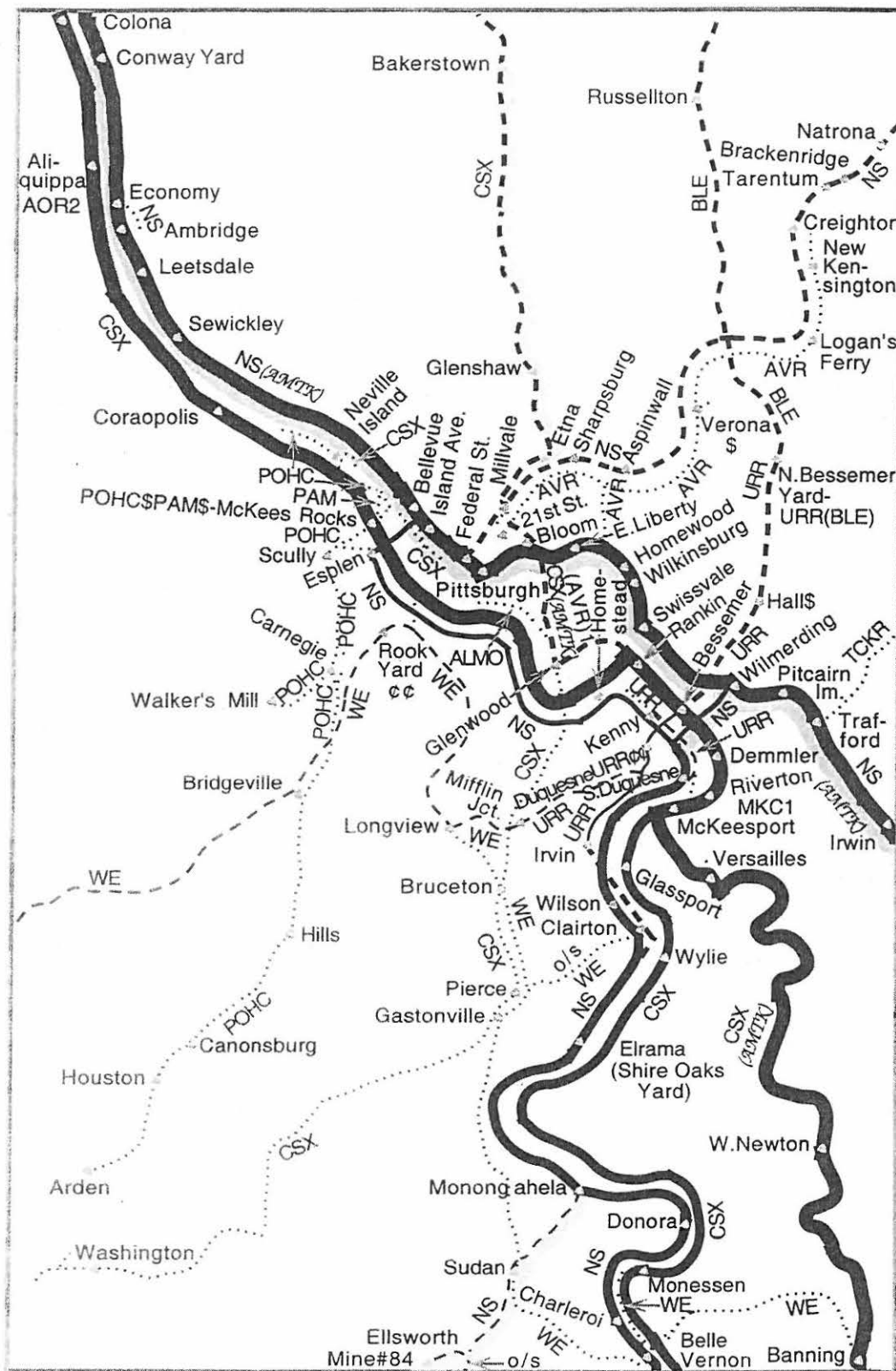
©Harry Ladd 2003

TRAFFIC DENSITY KEY

Tonnage Group	Millions of Gross Ton-Miles per Mile
7	40 PLUS
6	30-39.99
5	20-29.99
4	10-19.99
3	5-9.99
2	1-4.99
1	0-0.99

PITTSBURGH

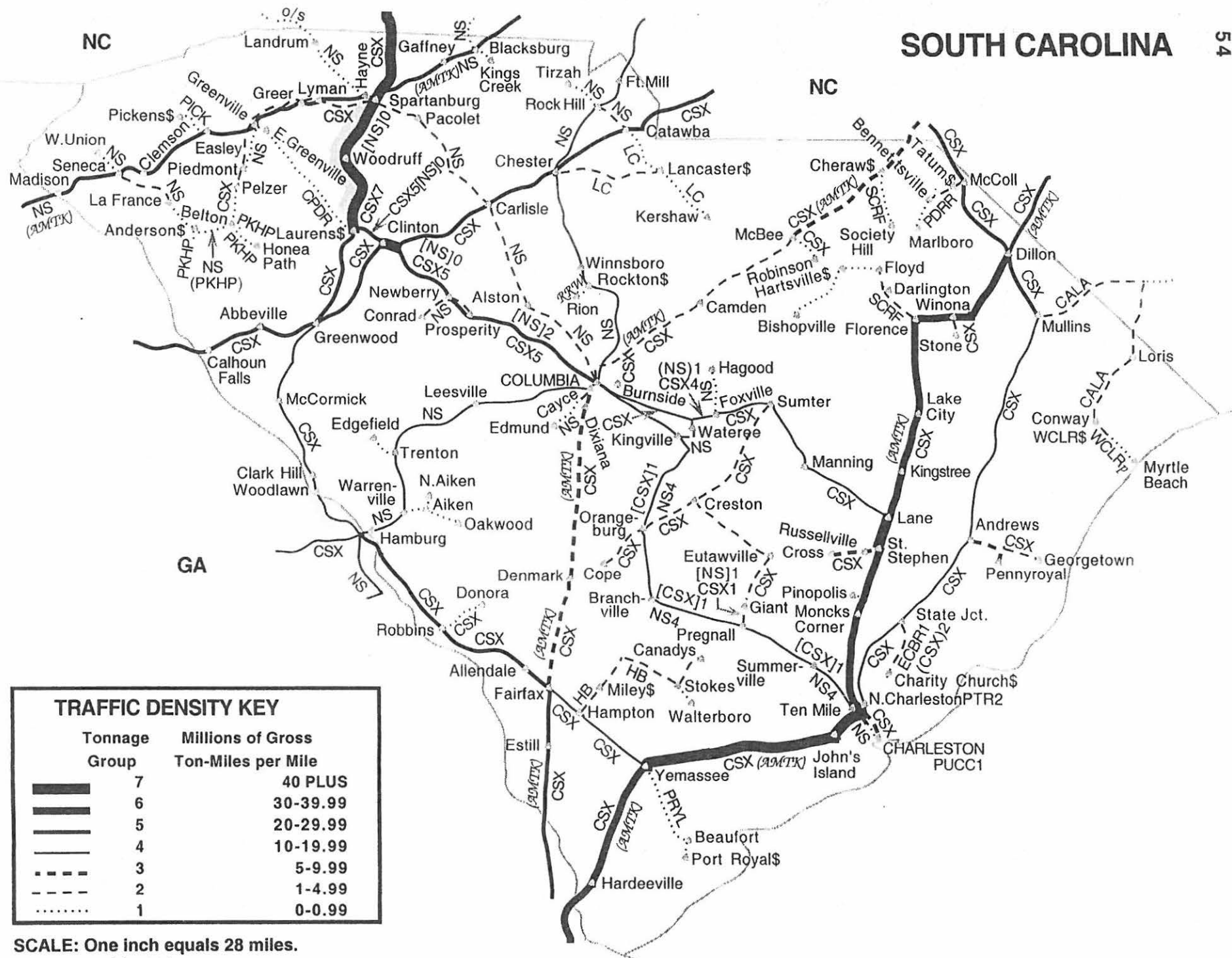
53

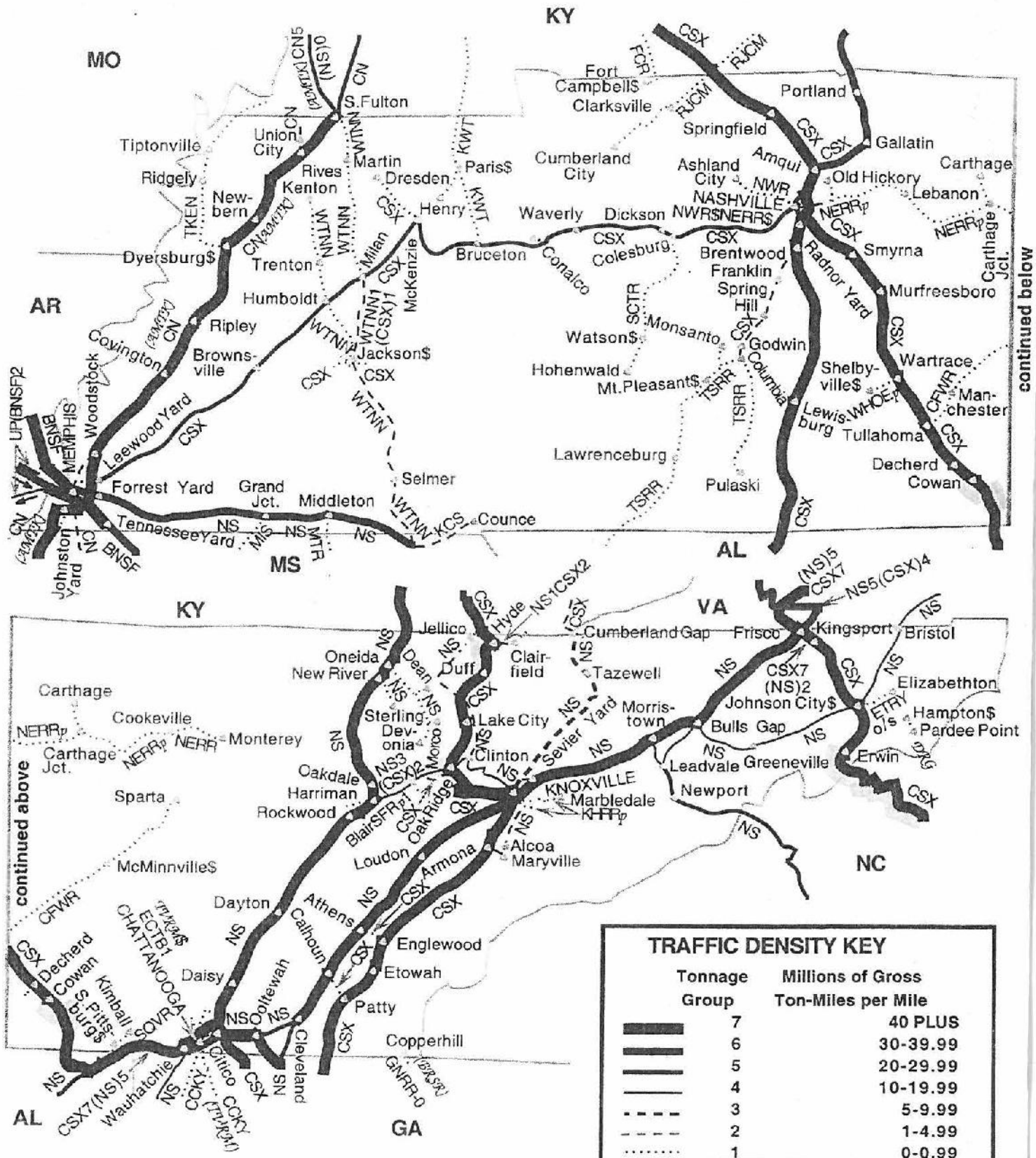


Note: AVR has trackage rights on NS, E. Liberty to Island Ave.;
CSX has trackage rights on NS(CSX)2, Bloom to Island Ave.

SCALE: One inch equals 5 miles.

©Harry Ladd 2003



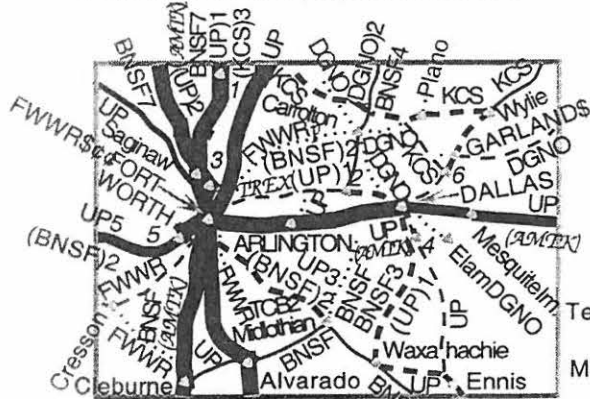


SCALE: One inch equals 32 miles.
©Harry Ladd 2003

TEXAS (west)

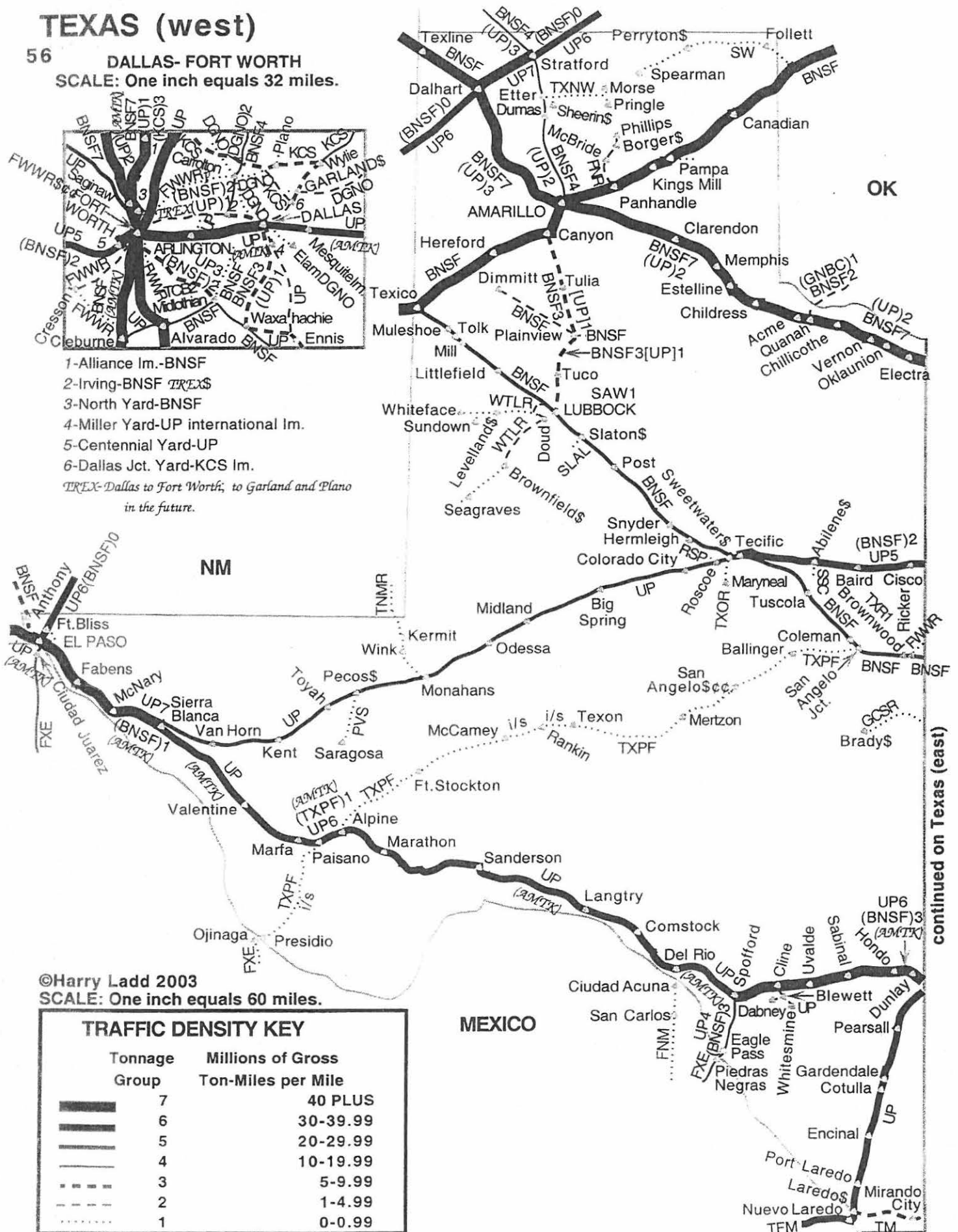
56

DALLAS-FORT WORTH
SCALE: One inch equals 32 miles.



- 1-Alliance Im.-BNSF
- 2-Irving-BNSF TREL
- 3-North Yard-BNSF
- 4-Miller Yard-UP international Im.
- 5-Centennial Yard-UP
- 6-Dallas Jct. Yard-KCS Im.

TREL-Dallas to Fort Worth, to Garland and Plano
in the future.



continued on Texas (east)

©Harry Ladd 2003

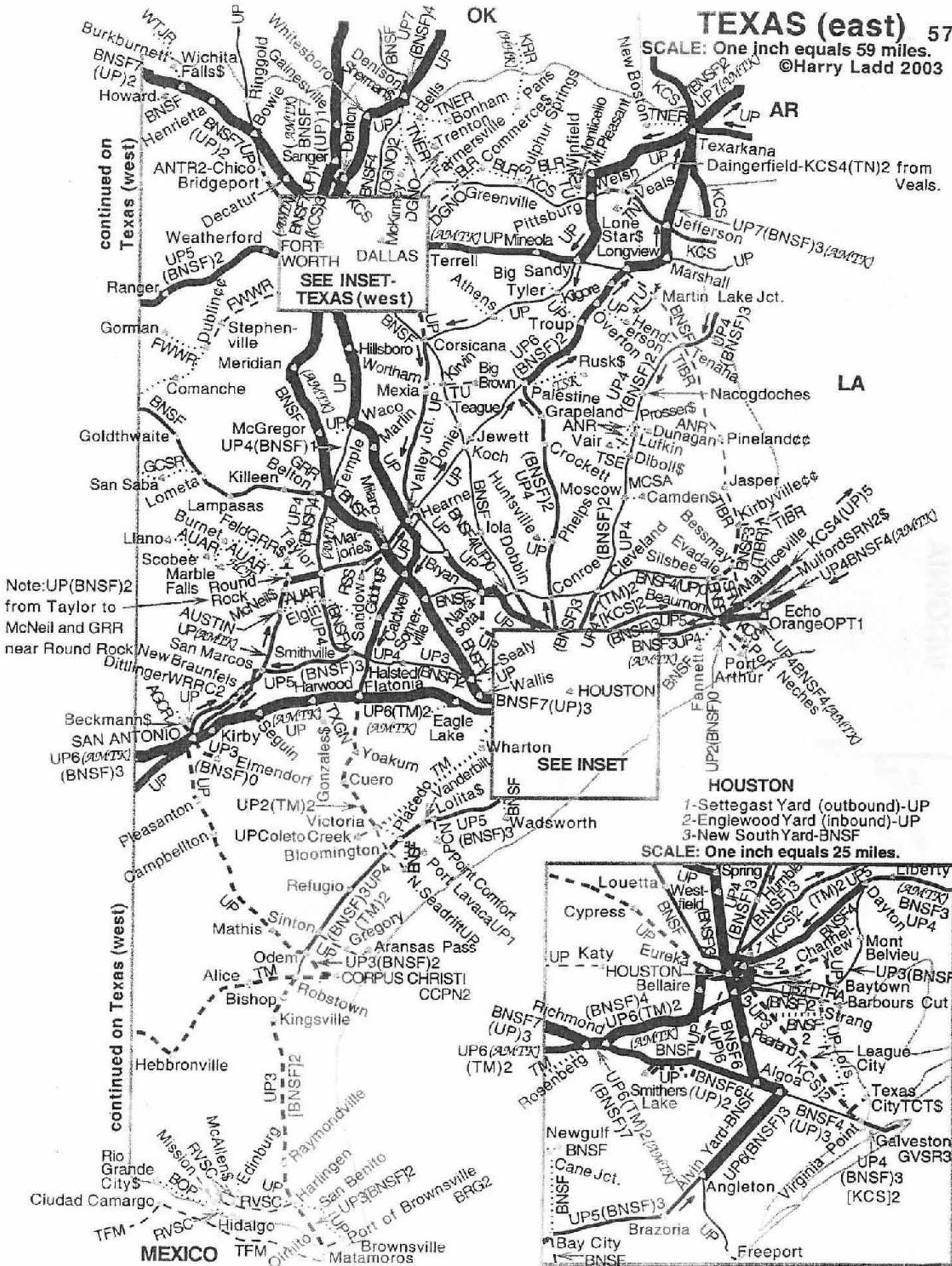
SCALE: One inch equals 60 miles.

TRAFFIC DENSITY KEY

Tonnage Group	Millions of Gross Ton-Miles per Mile
7	40 PLUS
6	30-39.99
5	20-29.99
4	10-19.99
3	5-9.99
2	1-4.99
1	0-0.99

TEXAS (east) 57

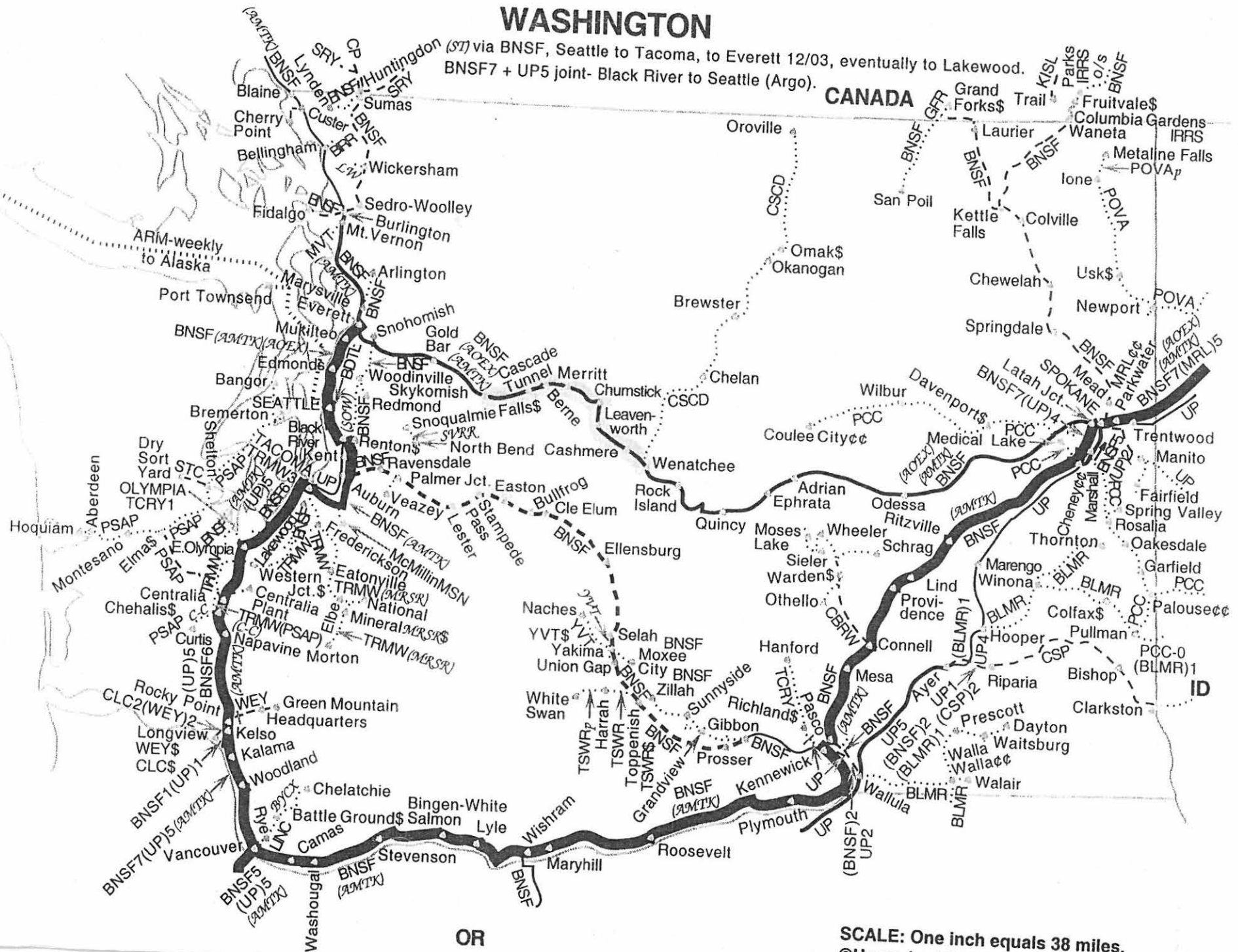
SCALE: One inch equals 59 miles.
©Harry Ladd 2003



WASHINGTON

(ST) via BNSF, Seattle to Tacoma, to Everett 12/03, eventually to Lakewood.
BNSF7 + UP5 joint- Black River to Seattle (Argo).

CANADA

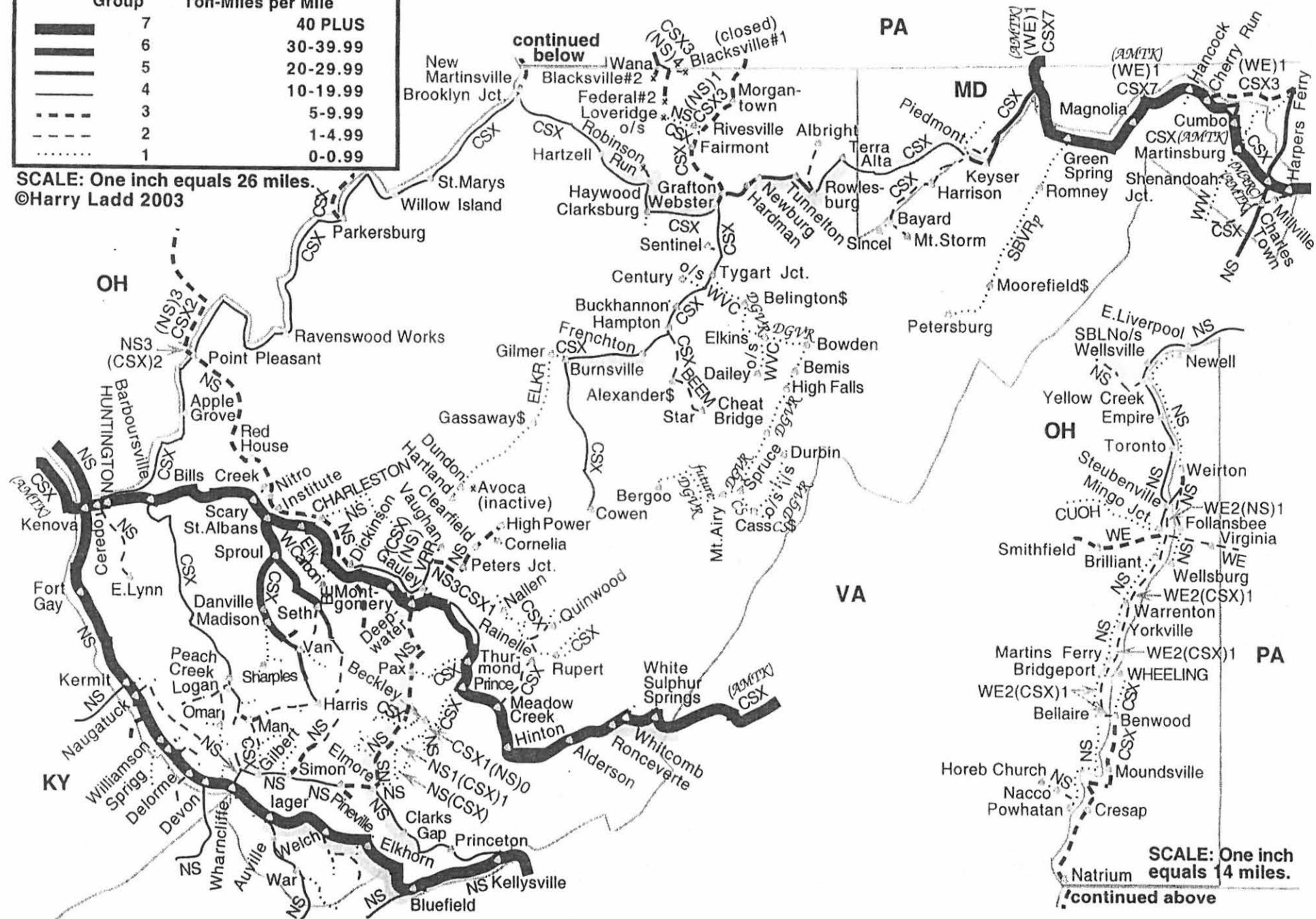


OR

SCALE: One inch equals 38 miles.
©Harry Ladd 2003

WEST VIRGINIA

SCALE: One inch equals 26 miles.
©Harry Ladd 2003

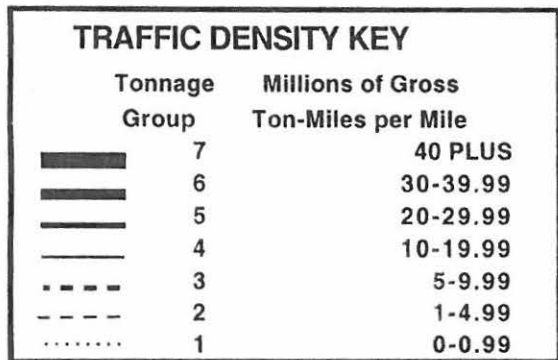


Tonnage Group	Millions of Gross Ton-Miles per Mile
7	40 PLUS
6	30-39.99
5	20-29.99
4	10-19.99
3	5-9.99
2	1-4.99
1	0-0.99

[illegible]

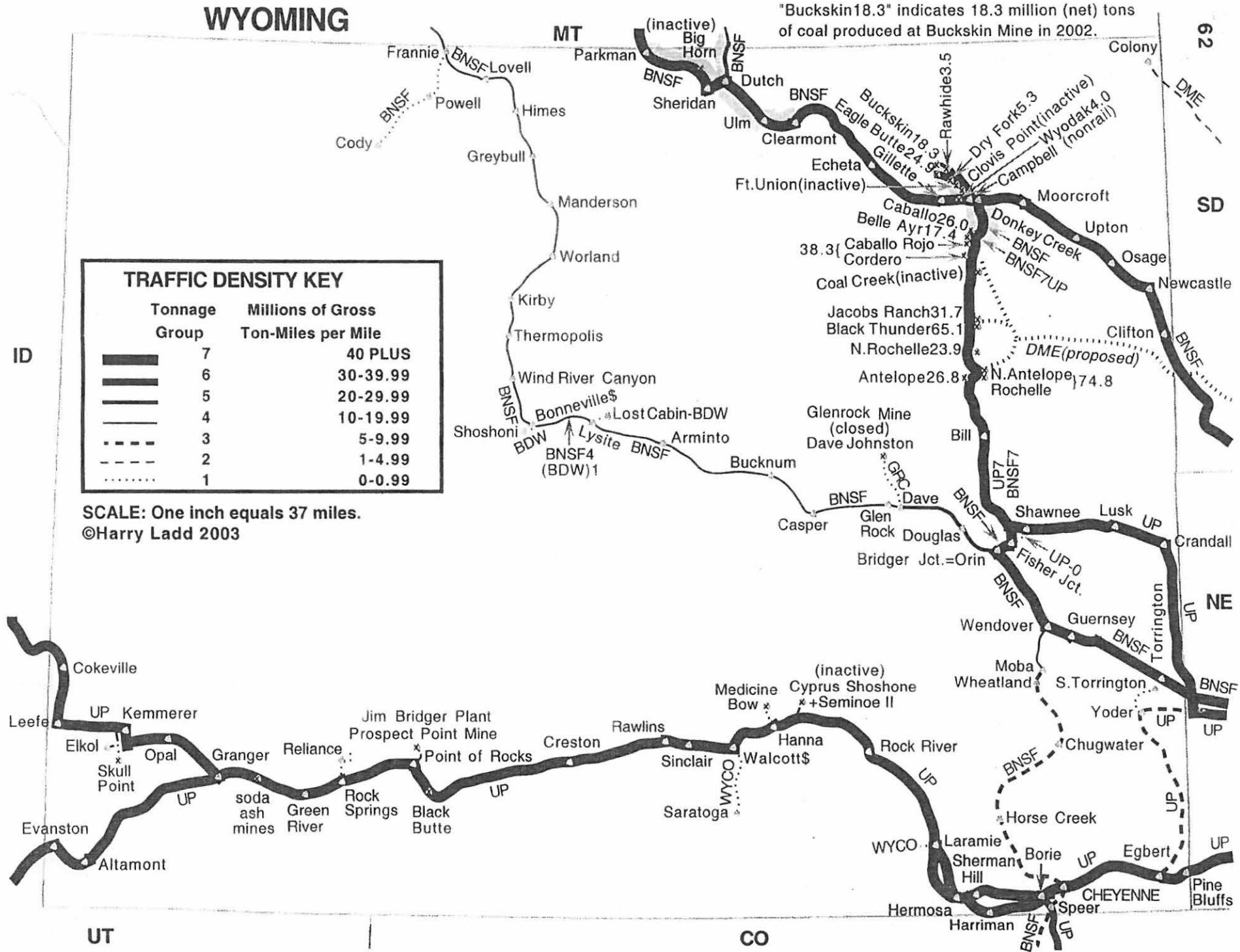
WYOMING

"Buckskin18.3" indicates 18.3 million (net) tons of coal produced at Buckskin Mine in 2002.



SCALE: One inch equals 37 miles.

©Harry Ladd 2003



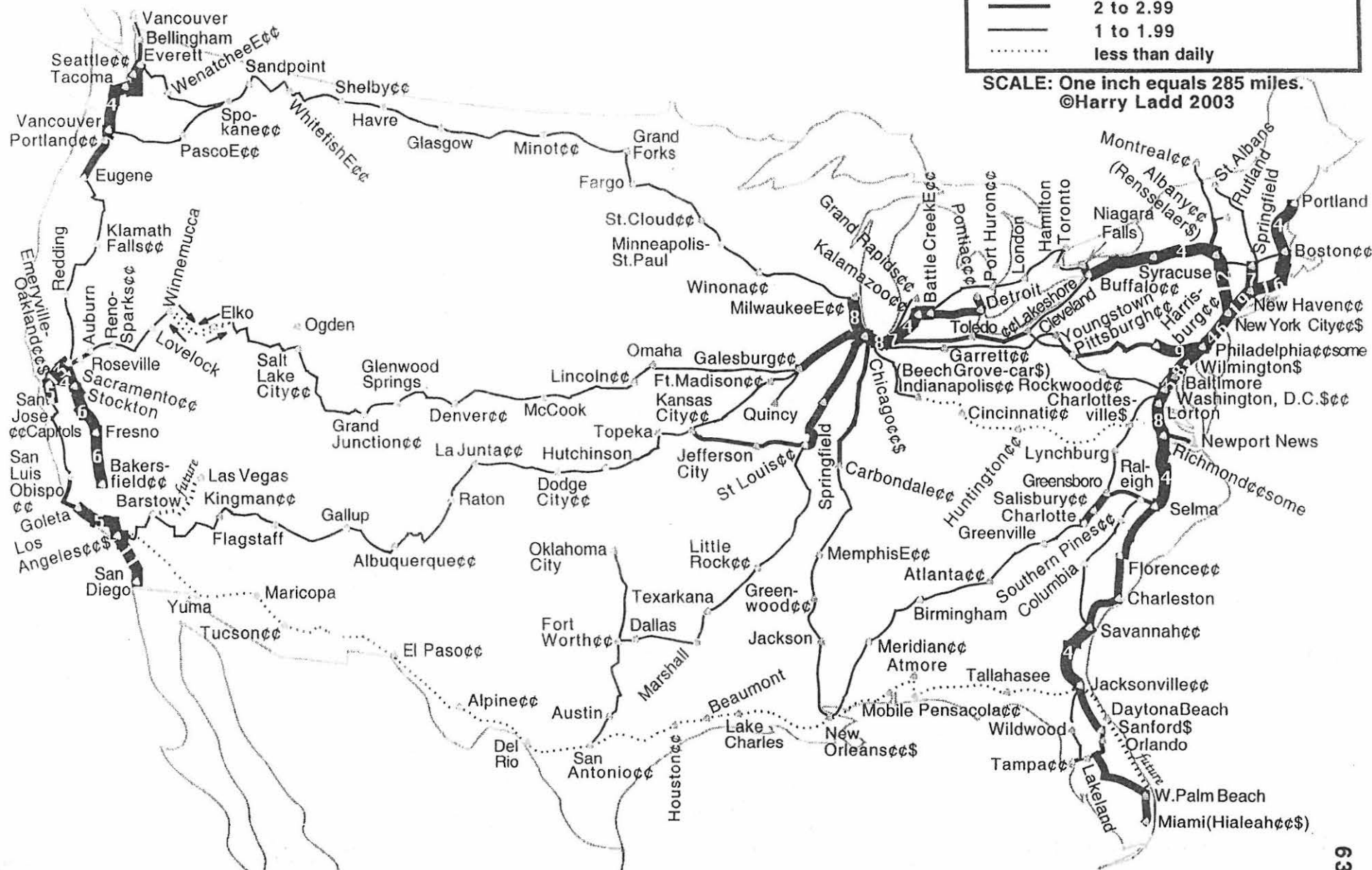
AMTRAK

When there is a single engineer in the locomotive cab, he/she is allowed no more than 6 hours working time. Therefore, at many places only the engineer will change. Those places are indicated by "Ecc". On longer runs, 2 engineers are used. I have incomplete information on where all the engineer-only crew changes are.

TRAIN FREQUENCY KEY NUMBER of TRAINS EACH WAY/DAY

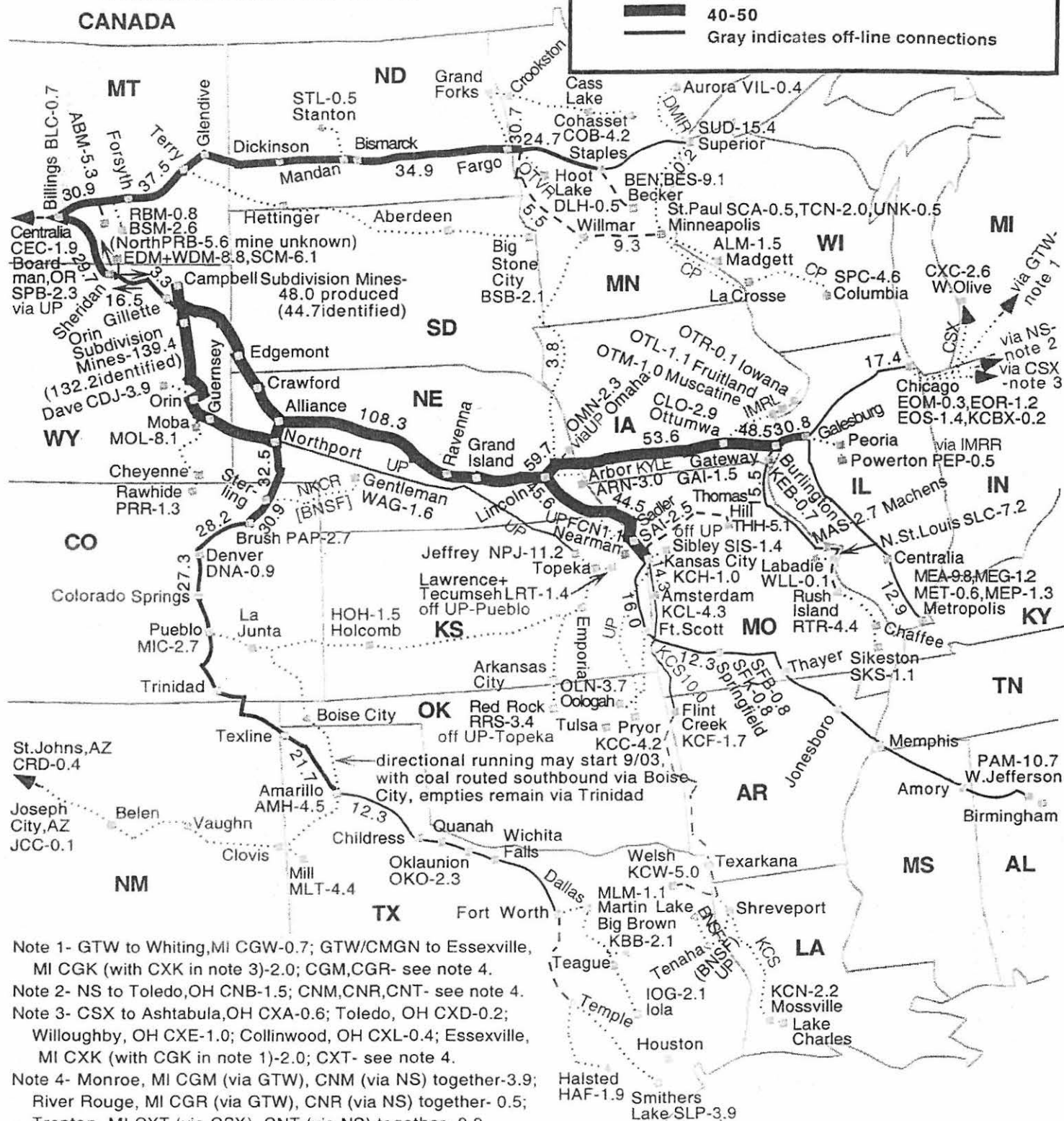
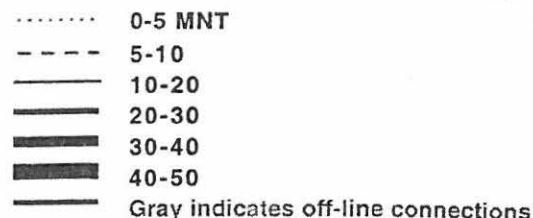
	4 or more, # per day in white
	3 to 3.99
	2 to 2.99
	1 to 1.99
	less than daily

SCALE: One inch equals 285 miles.
©Harry Ladd 2003



CANADA

65

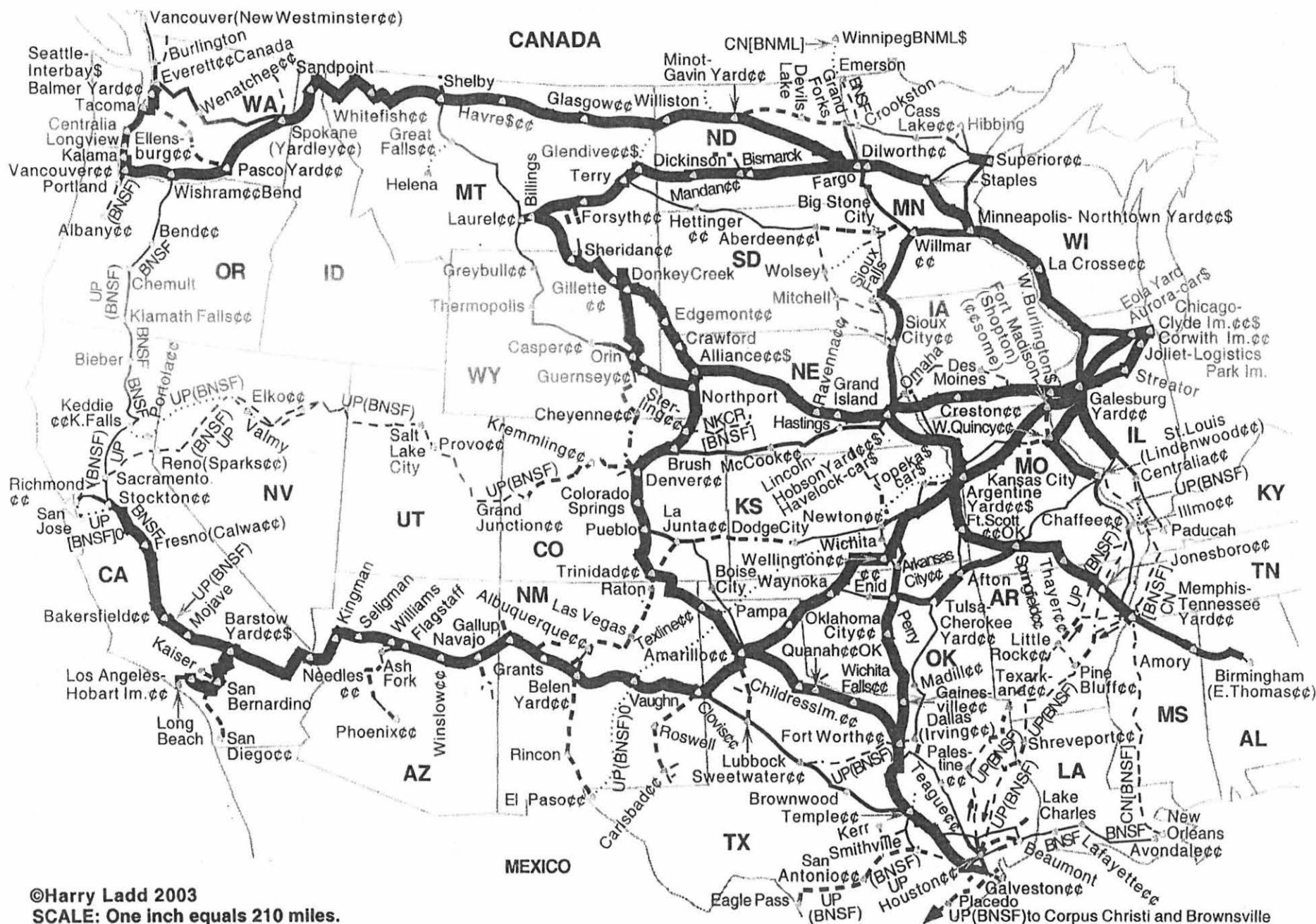


Trenton, MI GYT (via GSX), GNT (via NS) together: 0.0

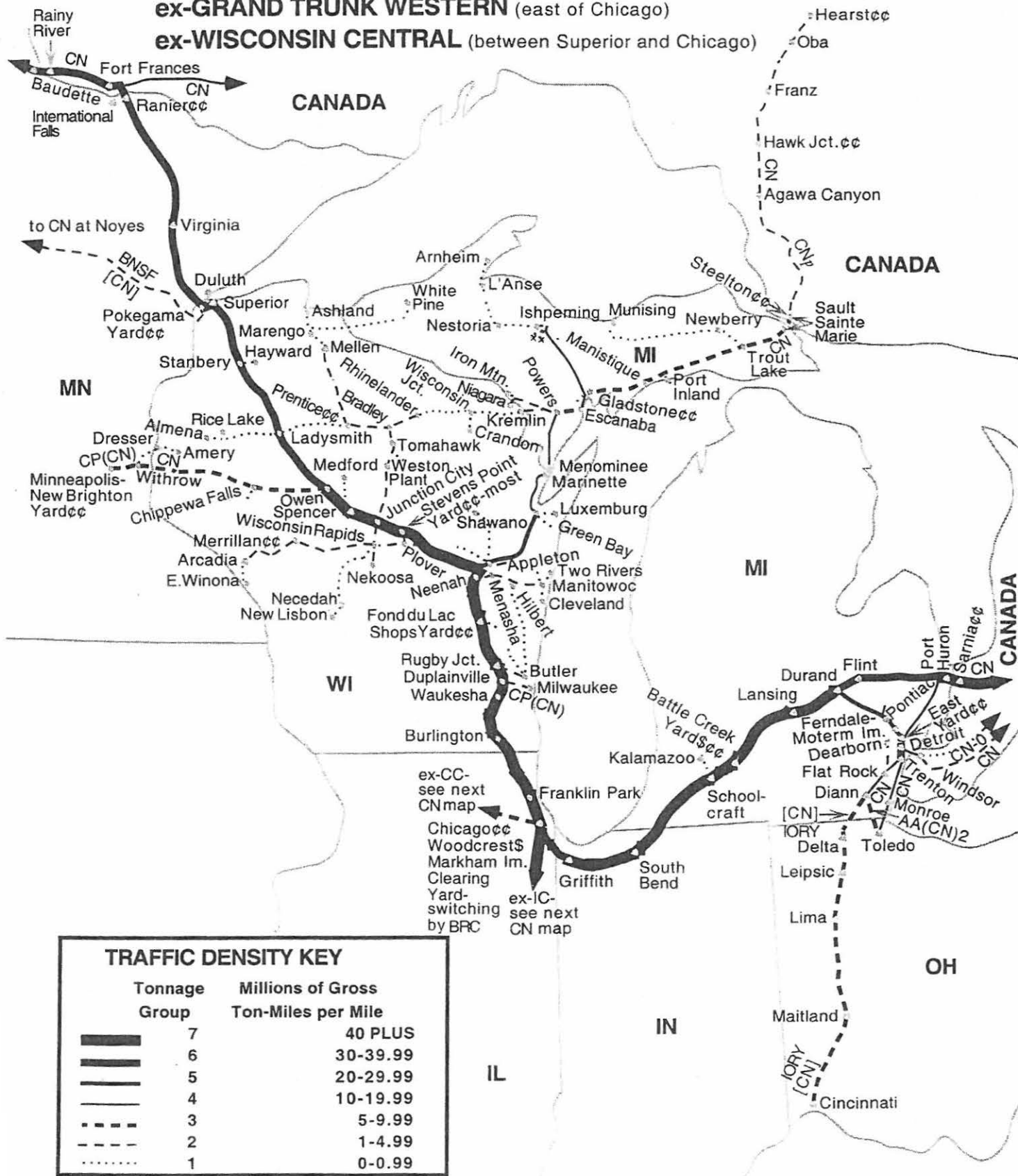
Purchase an Altamont timetable (page 97) to decode 3-letter BNSF coal symbols. About 6 million tons of coal for Georgia Power near Atlanta (via NS from Memphis) will shift to BNSF from UP.

BURLINGTON NORTHERN & SANTA FE

BURLINGTON NORTHERN (MANITOBA) LIMITED



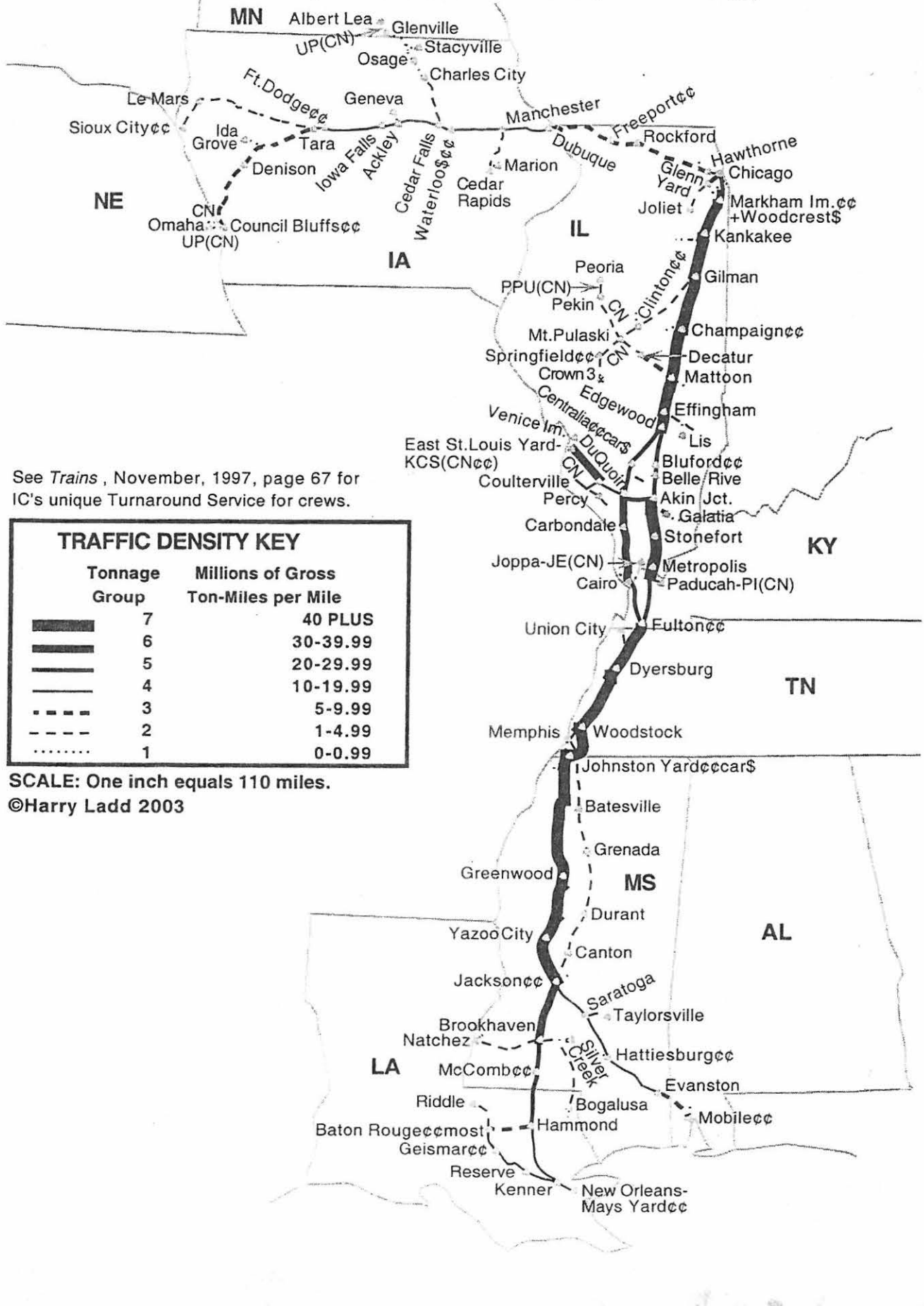
CANADIAN NATIONAL
ex-DULUTH, WINNIPEG & PACIFIC (north of Superior)
ex-GRAND TRUNK WESTERN (east of Chicago)
ex-WISCONSIN CENTRAL (between Superior and Chicago)



CANADIAN NATIONAL

ex-ILLINOIS CENTRAL (south of Chicago)
ex-CHICAGO, CENTRAL & PACIFIC (west of Chicago)

67

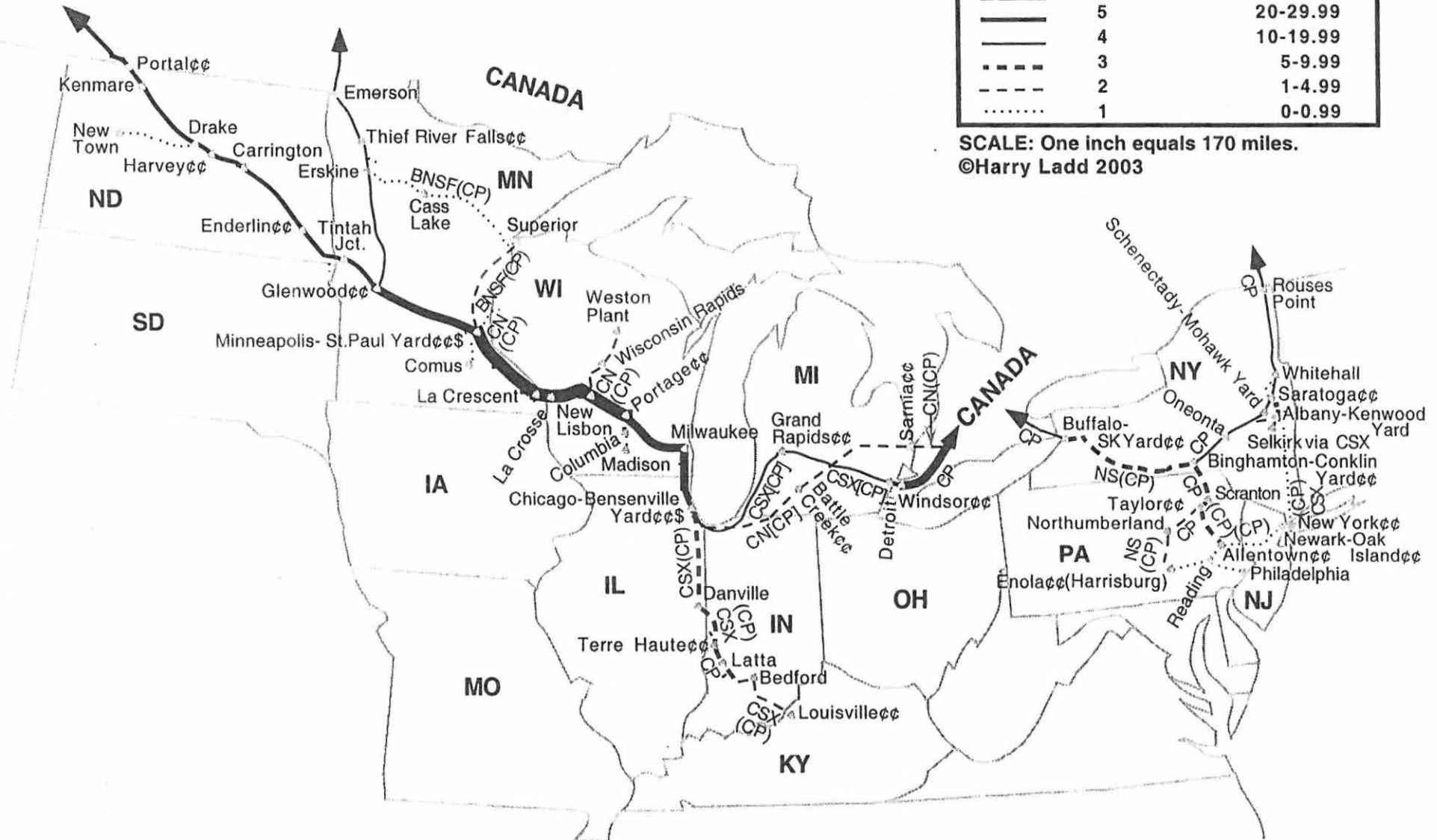


CANADIAN PACIFIC

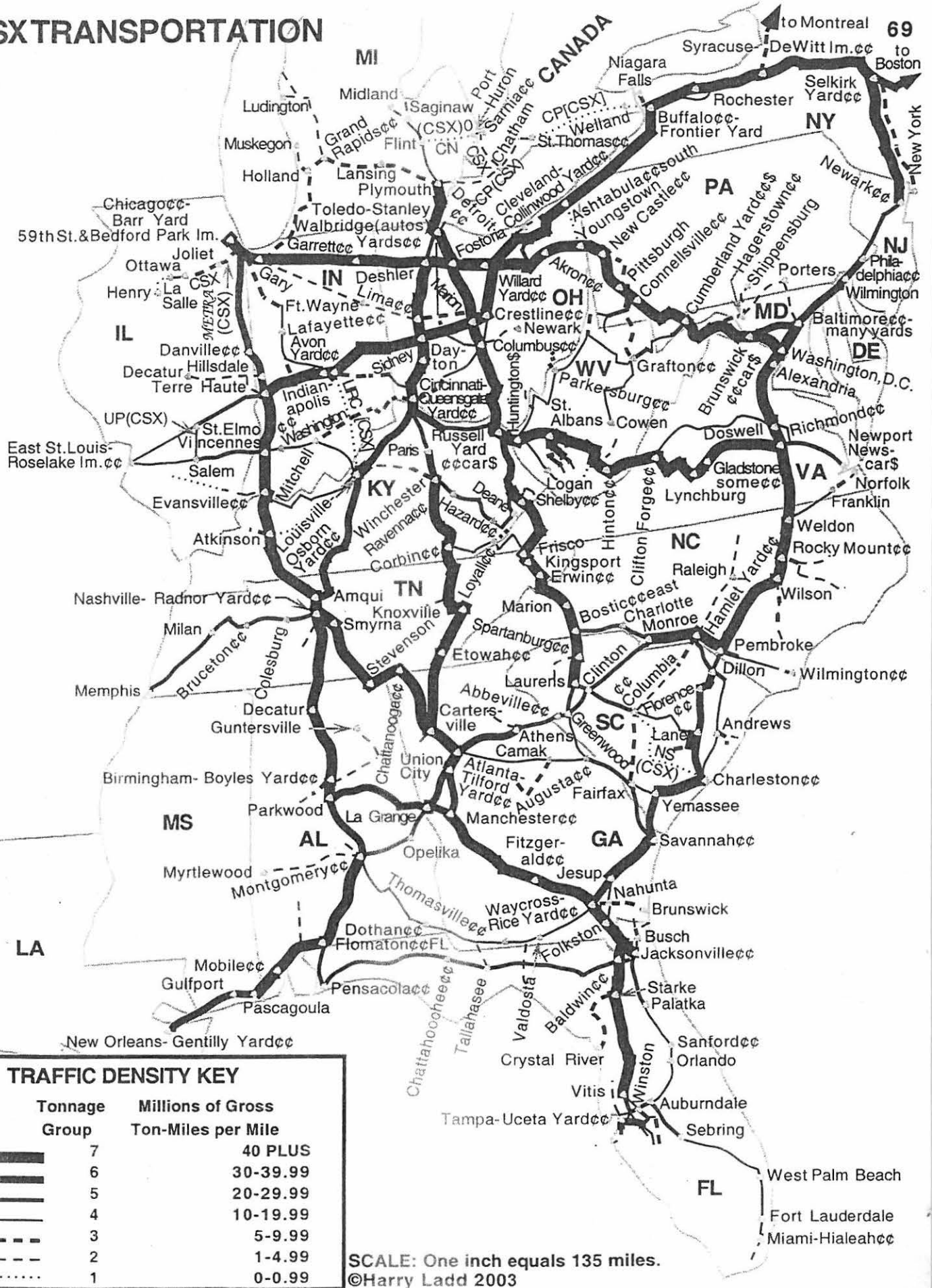
TRAFFIC DENSITY KEY

Tonnage Group	Millions of Gross Ton-Miles per Mile
7	40 PLUS
6	30-39.99
5	20-29.99
4	10-19.99
3	5-9.99
2	1-4.99
1	0-0.99

SCALE: One inch equals 170 miles.
©Harry Ladd 2003



CSX TRANSPORTATION



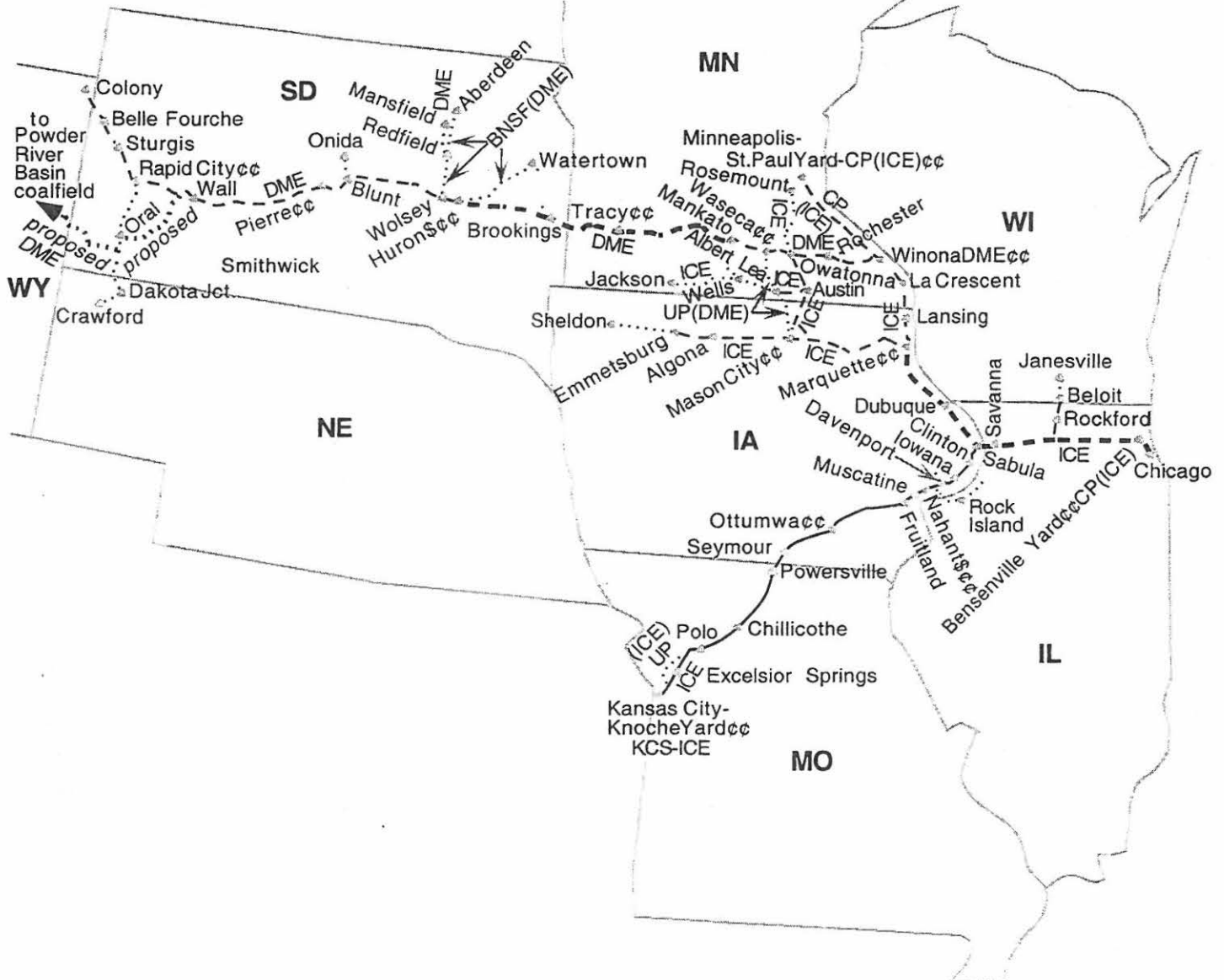
DAKOTA, MINNESOTA & EASTERN IOWA, CHICAGO & EASTERN

TRAFFIC DENSITY KEY

Tonnage Group	Millions of Gross Ton-Miles per Mile
7	40 PLUS
6	30-39.99
5	20-29.99
4	10-19.99
3	5-9.99
2	1-4.99
1	0-0.99

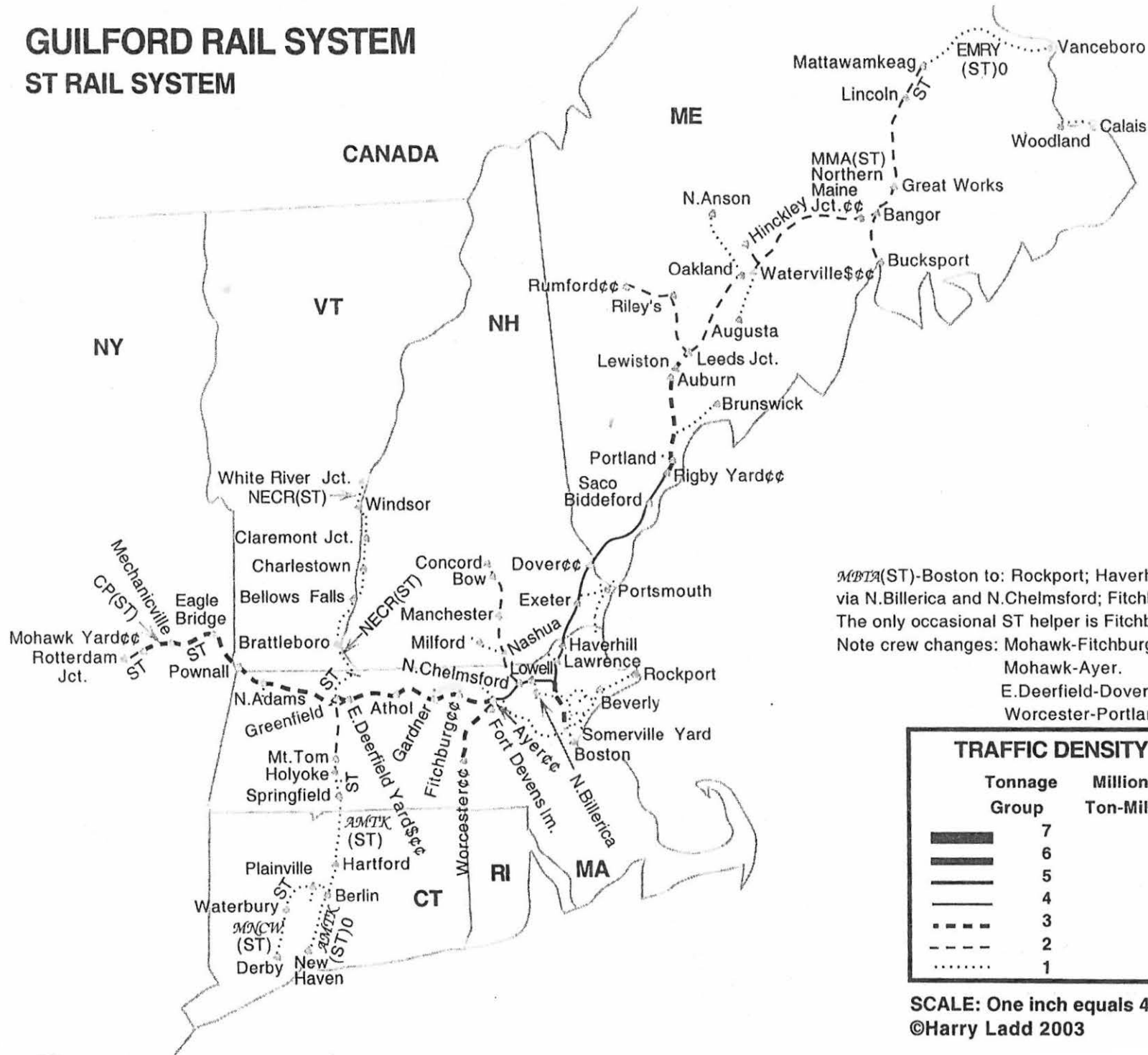
SCALE: One inch equals 115 miles.

©Harry Ladd 2003



GUILFORD RAIL SYSTEM

ST RAIL SYSTEM



MBTA(ST)-Boston to: Rockport; Haverhill; NH state line via N.Billerica and N.Chelmsford; Fitchburg.
The only occasional ST helper is Fitchburg-Gardner.
Note crew changes: Mohawk-Fitchburg-Portland (Rigby).
Mohawk-Ayer.
E.Deerfield-Dover-Portland.
Worcester-Portland.

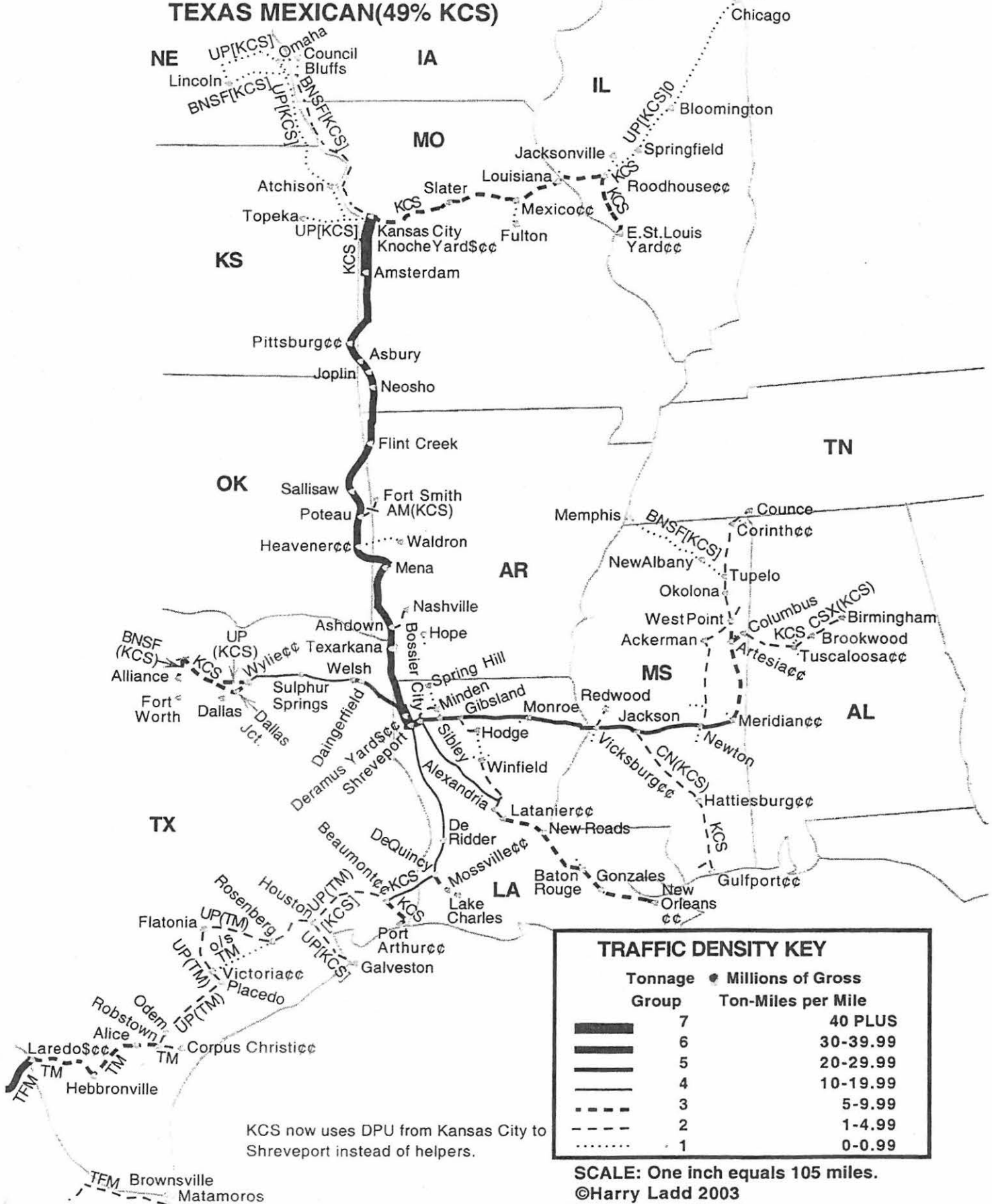
TRAFFIC DENSITY KEY

Tonnage Group	Millions of Gross Ton-Miles per Mile
7	40 PLUS
6	30-39.99
5	20-29.99
4	10-19.99
3	5-9.99
2	1-4.99
1	0-0.99

SCALE: One inch equals 44 miles.
©Harry Ladd 2003

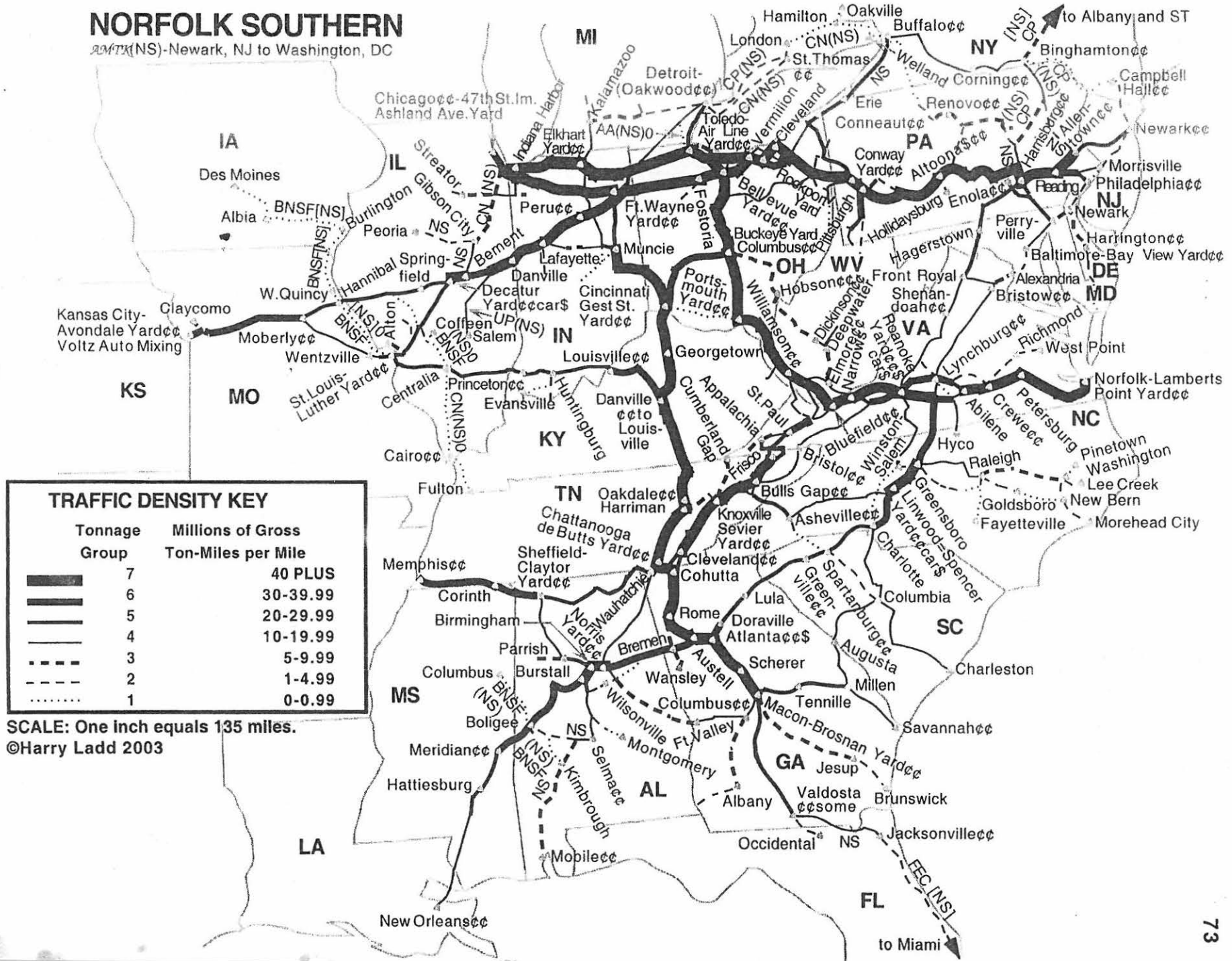
KANSAS CITY SOUTHERN TEXAS MEXICAN(49% KCS)

KCS wants to acquire all of TFM and TM to become NAFTA Rail.



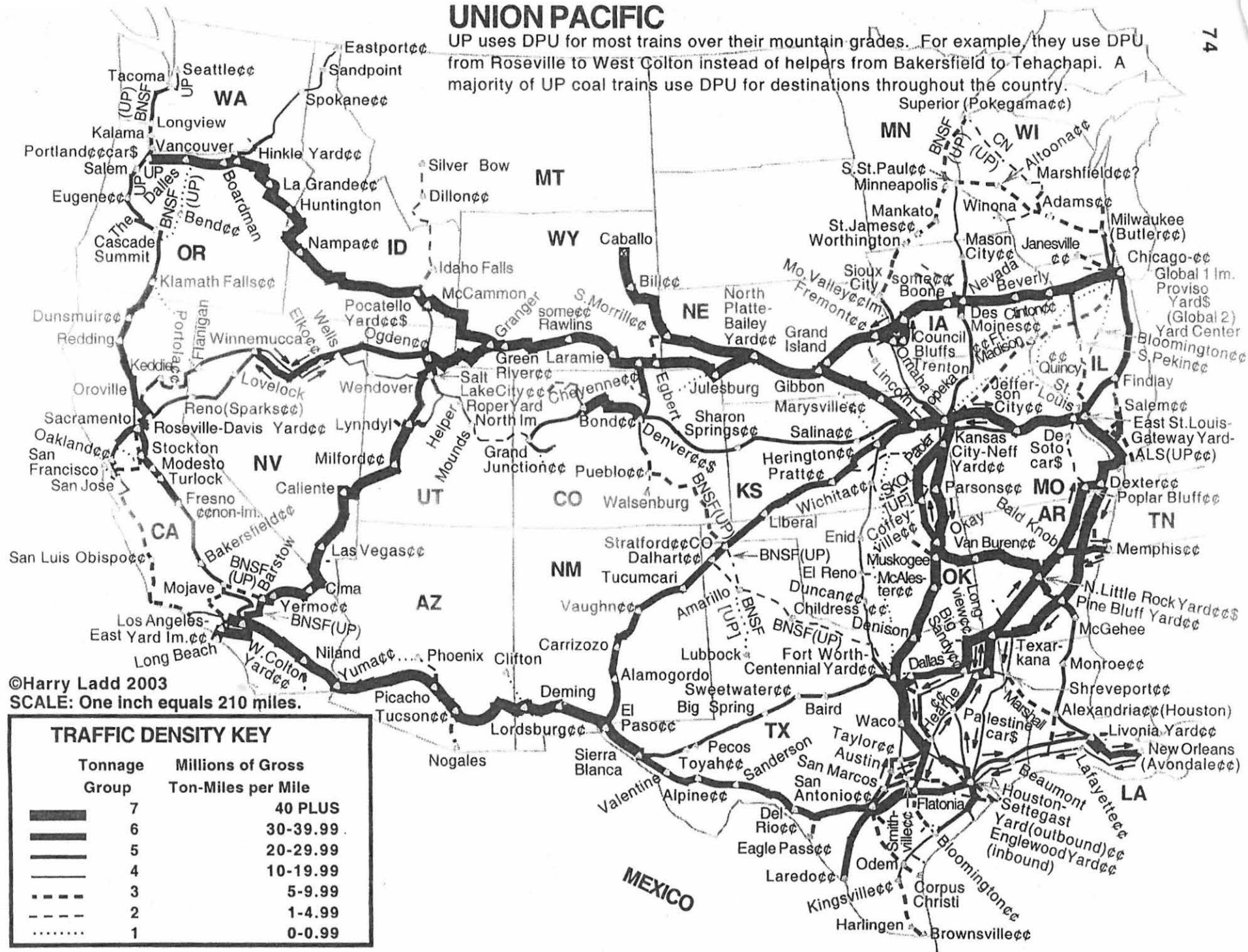
NORFOLK SOUTHERN

AMTX(NS)-Newark, NJ to Washington, DC



74

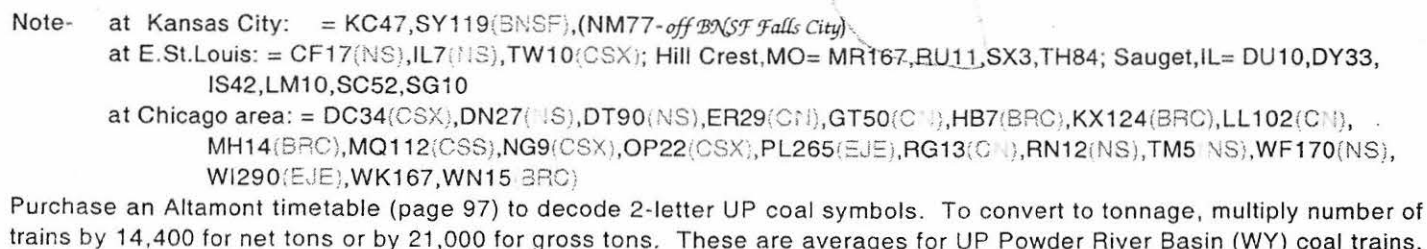
74



75

75

Gray indicates off-line connections



9,

[illegible]

**Millions of Gross
Ton-Miles per Mile**

100 plus

Less than 100

INFORMATION SOURCES (continued)

and descriptions. Annual; \$22.45.

Traffic World

P.O. Box 541
Cranbury, NJ 08512
(888)215-6084
www.trafficworld.com

Transportation logistics trade magazine with rail-
road current news. Weekly; \$174 per year US,
Canada; \$259 Foreign.

The Train Order

edited by Richard S. Croy
RCroy@att.net
P.O. Box 16217
Cleveland, OH 4416-0217

Ohio region current news. Monthly; \$12 per year.

www.TrainOrders.com

The best web site I've found for discussion on all
aspects of traffic and operations. Many railroads
share their knowledge and viewpoints, sometimes
conflicting! Also has 2 webcams.

Train Watcher's Guide to Chicago

Train Watcher's Guide to Kansas City

Train Watcher's Guide to St. Louis

by John Szwajkart
P.O. Box 163
Brookfield, IL 60513
www.szwajkart.com

Describes location-by-location with operating prac-
tices, maps, and how to get there. \$15.50- Chi-
cago; \$15.25-Kansas City; \$11.50-St. Louis; \$40-
Kansas City with video tape; Canada add \$3;
Foreign add \$6- air mail.

Trains

edited by Mark W. Hemphill
Kalmbach Publishing Company
P.O. Box 986
Waukesha, WI 53187-0986
(800)533-6644 or (262)796-8776
www.trainmag.com

Largest national publication, with news and ex-
cellent in-depth feature stories. Monthly; \$42.95 US,
\$54 Canada & Foreign per year. Issues with
Trackside Guides: Cincinnati- 9/02; Portland- OR-
12/02; Detroit-6/03; Chicago-7/03; Omaha-9/03.

www.TrainWeb.com

Web site with industry news, discussion for-
um, webcams, extensive web links and more

Twin Ports Railfan Guide

Lake Superior Transportation Club, 1996
506 W. Michigan St.
Duluth, MN 55802
(218)733-7590
www.lsrn.org

Railroad-by-railroad description of Twin Ports op-
erations and sites, maps, train symbols. Updated
annually with a 1-page insert. \$6 + shipping.

United States Geological Survey- topography maps

U.S. Geological Survey
Customer Services
47914 252nd Street
Sioux Falls, SD 57198-0001
(800)252-4547 or (605)594-6151
www.usgs.gov

These U.S. contour maps show highways and rail-
roads. 1:500,000 and 1:250,000 scale show a
large area on each map- \$7 each. 1:62,500 and
1:24,000 show local details- \$6 each. Add \$5
shipping per order. Free state indexes. Older topo
maps at www.topozone.com and www.terraser-
usa.com. The latter also has newer aerial maps.

ABOUT THE AUTHOR

Harry Ladd was introduced to rail-
roads at an early age by his late
uncle, Tom Gill, who was a South-
ern Pacific conductor in the Ox-
nard, CA, area. The need to find
out where the tracks led gave
Harry an early interest in maps.
He went on to earn a B.A. degree
in Geography at UCLA in 1971.
He and his wife, Claudia, live in a
condominium overlooking Metro-
link (and Amtrak, BNSF, and UP)
in Orange, CA. Harry also enjoys
hiking, bicycling, and cross-coun-
try skiing. He is employed at La-
guna Travel, arranging travel.